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Original Correspondence.

THE TORBANE HILL MINERAL.

SIR,—The article in your Journal of Feb. 23 involves on me to offer a few remarks not for the sake of its writer, who speaks and argues imperatively, like a Roman inquisitorial tribunal, but for the sake of a fair discussion. That writer, choosing to act under an anonymous name, though belonging to the stronger side of this question, says in substance that the opinions of eminent men are sufficient to meet the question for ever at rest, because they have, in their capacity of sworn witnesses, declared by way of argumentation the mineral in question to be no coal, but a kind of bituminous shale. Then, he adds something to this effect, that the former trial was ever memorable as a disgrace, not to true science, but to the men of science; and, longing to the one side or the other, meaning, of course, not his own side. What shall we do with a writer who, by such grounds, allows no contradiction on an open and important question? How can we deal with that inexpressible philosopher? We could spare many things—judges, consenting parties, juries, and even our own extensive Journal. We, the minority, just cannot deliver up conviction under such reasons, but not that writer's language, are brought home to our understanding. Having taken by conviction my position among the minority in your Journal, I cannot offend nobody, but to give for my view such reasons as I believe have not been given by any other one, and which reasons I do not care as to how unkindly they are received. My reasons are in short these:—As black coal and brown coal are minerals which consist of carbon in combination with hydrogen, oxygen, and water, and as Torbane Hill mineral comes precisely within the range of this definition, and as that questionable mineral is either a black coal or a brown coal, and therefore is at any rate. If the anonymous writer says that the carbon of that mineral as it is in a volatile condition, I am at a loss how to understand it, and how that mineral could make its appearance at all, for the carbon along with the hydrogen and water are those combined and fixed ingredients which together did form that mineral. If any coal or Torbane Hill mineral are subjected to a separating operation, particularly in an elevated temperature, a disengagement of these ingredients follows, so that the carbon and hydrogen may become volatile.

In reference to the ashes of a coal mineral, it is known that they are the universal residuum, consisting of a variable composition of silica, alumina, magnesia, lime, and potash. In case the carbon, oxygen, and hydrogen had no opportunity of separating with silica alone, for instance, these ingredients took hold of another or other bodies which were present, and so the mineral would be impure, at least, that is, I beg to repeat that, when taking up this question, I had no other desire than to express a disinterested opinion. The writer of Feb. 23 merely repeats the arguments of others, and it is not for me to say whether or not he has another intention in the matter than a purely scientific one. The wide field of science may mislead philosophers, and Buffon jestingly says in this respect that geologists could not well go without laughing at each other, like the augurs of Cicero's time. Another geologist remarks, that men while giving materials of the history of the earth, they at the same time gave materials of the history of the errors of human reasoning. Therefore, we must be allowed to test and prove every view propounded, though coming from an honest authority as that of Hugh Miller. The time of Galileo, and of the disengagement of an inquisitorial tribunal, are behind us. The finishing sentence, *Roma locuta, non moror.*—Tyndrum, Crief, N. B., March 6. C. H. GUSTAVUS TAYLOR.

TRANSMISSION OF POWER.

SIR,—In offering a few words upon this subject, I am aware that the proposal I have to make has been partially carried out by Mr. Armstrong, of Newcastle. The gentleman has utilised the natural gravitation of water. Collected upon a flat, it is conducted by a pipe to the bottom of the mine, and there it actuates, by pressure, a engine for traction purposes. This principle I propose to amplify, by employing the power of the steam-engine on the surface in forcing the water down the pipe, and actually conveying the power of the engine through a pipe, instead of by a rotating shaft. The form of the letter U will best illustrate the idea. The slender leg will convey the power down the pit, while the thicker leg will suffice to convey the power to the engine, and the fluid representing water will be in the middle. Water being a solid, there is no loss in the transmission of power by it. It will go out the same impulse at the bottom as it receives from the engine at the top of the shaft—that is to say, the water being driven by the steam-engine into an air-chamber at a given pressure (say, 150 lbs. or 200 lbs. on the inch), the same pressure will be available at the bottom, while a given quantity in cubic inches applied to the engine at the bottom will represent one horse power.

It will be found on computation that the volume required to represent many horse power can be transmitted through a pipe of 5 in. bore. The greater the diameter the larger will be the hose of the pipe required to be, so as to save loss of power in discharging the required quantity within a given time at the bottom engine. With reference to the method of reconstructing the power at the bottom of the shaft, I shall not take up your space with it; but should any of your readers engaged in these undertakings feel sufficient interest in the subject to address me, I shall give him my ideas upon it. —Montrose, March 10. ROBERT BARNARD.

MANUFACTURE OF GAS—COAL V. OIL.

SIR,—In last week's Journal, under this heading, appeared an answer from "D.K." to an enquiry made in the previous Number, in reference to Longbottom's oil apparatus, which requires noticing. "D.K." states that, to his own knowledge, the companies formed by Mr. Longbottom are in active operation, and refers "D.K." to the Hatfield Station, to see an apparatus giving full satisfaction. If the apparatus is completed it cannot have been so for more than a fortnight; and surely this scarcely a sufficient period to enable any one to state that it is "giving full satisfaction." Where is the company paying according to "D.K." statement? I think of no such company in this kingdom; it may, probably, exist in America. How was it that Mr. Longbottom was unsuccessful in getting up a company at Rotterdam? and why has he not done more in this country? The answer easy:—1. Because there is nothing whatever that is new in the patent. 2. Claims, "retorts constructed of malleable iron, convex inwards and convex to outside." Is this a new application of the principle? I fancy not; and even if it were, practically it is useless. 3. He claims "causing the vapours to pass through a body of lime and charcoal under heat." What more is this than Bunsen's process, or, what is to prevent any one from saturating the charcoal with soda, to produce the same effect?

Having disposed of the peculiarities of Mr. Longbottom's patent, I will now consider the question of cost of production of gas by any oil gas apparatus. I maintain that in a country where coal is cheap, neither oil nor any other matter, whether liquid or solid, can compete with it; while, by the improvements made in coal gas apparatus, the cost is so much reduced as to enable it to compete with oil gas. How many oil gas schemes have there been in this country, and there are they now? I believe that there have been brought out under most respectable auspices. The fact is, that oil will produce on an average only 80 cubic feet of gas; it therefore requires 12 gallons to produce 1000 feet, giving an expenditure of 9s. for the raw material alone (assuming that the oil will not cost more than 9d. per gallon); add to this cost of coke to heat the retorts (at Hatfield there are four fires), cost of purification, attendance, wear and tear, and interest of capital, &c., which brings the cost to something approaching 15s. or 14s. per 1000 cubic feet, taking an average of six months working. I know it may, and probably will, be said, that I make no calculation of cost of refuse. To this I answer, that I answer, that I make no calculation of cost of refuse, but I will refuse to say that the gas alone will weigh 6 lbs., and there will be a considerable deposit of carbonaceous matter, which reduces the result to a nominal quantity. Further, it is well known that when Winsor first began the structural distillation of coal, he stated, in his prospectus of the "National Light and Heat Company," that there would be an enormous amount of revenue produced by the sale of the patent oil tar produce; of the value of this conjecture I need not state that it is now difficult to dispose of the tar at even a halfpenny per gallon. Having trespassed too much upon your space, I will conclude by stating that, in countries where coal is abundant, or very cheap, the oil and resin gas apparatus may succeed; but wherever canal coal can be obtained under 4s. per ton, a cheap and better gas can be produced from it than from either oil or resin. I write a practical man, and am fully prepared further to discuss the question of Coal v. Oil Gas. —March 10. AN ENQUIRER.

BLAENAVON IRON AND COAL COMPANY.

SIR,—In reply to the letter of Mr. J. C. Hill, of Feb. 27, I beg to inform him that it is not my wish to disturb the offensive puddle, as he terms it. My object was

already been advanced to effect all that is desired; and I, for one, wish no more than reasonable expenditure and moderate entertainment. Until this be accomplished I cannot say that neither you or I will swerve from our duty.
Adversity, March 9. AN ADVENTURER IN MANY MINES.

ACTION FOR CALLS.

Sir,—I think it must have been perfectly apparent, by my enquiries of Feb. 27, referring to "Actions for Calls," that I sought to elicit information for the general benefit of all honourable men interested in mining laws. I referred to the case Hyatt v. Parker, to show that the rule of the East Barch Tor Tin Mine being precisely the same as the rule laid down by Mr. Tapping, and the recent decision of the Court having treated such a rule with contempt, no company or individual could prudently adopt the work of Mr. Tapping as a legal guide. I intimated my opinion that the work possessed as much merit as any of our most eminent lawyers could have given to it. The talent and ability of the author were forcibly illustrated by the facility with which he "demolished" a rule which, in plain English, was in perfect conformity with his own theory. Perhaps, if Mr. Tapping had to write the Prize Essay now, he would altogether omit such a rule, and retail his oft-repeated suggestions, that the pursuer should have express power given to him, by the rules of the association, to sue the defaulting shareholder for the amount of calls due. &c.
Your correspondent, an Indignant Shareholder, writes to say "a secretary has no remedy at law for payment of calls;" and again, "if Mr. Tapping's book had no remedy at law for payment of calls," the present lamentable position of the company would not have happened. I maintain that the rule referred to in the East Barch Tor Tin Mine was strictly similar to that given in Mr. Tapping's work, and hence it is impossible to know what "An Indignant Shareholder" means.
It is not my practice to offer "ungenerous remarks," gratuitously nor otherwise; nor is it my custom to notice such effusions as that of "An Indignant Shareholder" who, by his unjust and contradictory style of letter is neither complimentary to Mr. Tapping, nor instructive upon any question at issue; but I fear it affords a proof that "An Indignant Shareholder" is regardless of that manly and upright courtesy and rectitude upon which he attempts to preach to.—AN INDIGNANT SECRETARY.
Liverpool, March 10.

TIN DRESSING—WILKIN'S SEPARATOR.

Sir,—Perhaps there is nothing of greater importance to the tin mines in Cornwall than a cheaper method of tin dressing, and nothing appears more difficult to obtain than a general good opinion of any new principle. Notwithstanding many improvements have been made, yet the chief object in tin dressing seems to be generally overlooked—an effective separation of the different sizes of stuff as it issues from the stamps. Now, the ordinary way is to allow the stuff and water from the stamps to pass into pits or strips of about 12 in. wide and about the same depth, and from 12 to 14 ft. long, the water and stuff from three or more heads being allowed to pass through one of these pits or strips, consequently it runs with such force that most of the fine tin is taken to a large reservoir or slime pit, and there allowed to settle, and afterwards go through a long course of operations in order to get out the tin, which is called the slime tin; hence arises the principal cost of tin dressing. A great deal of trouble is paid to improve the method of dressing this slime tin, and in a great many cases a considerable saving is effected in manual labour, but it is still attended with considerable expense.
The object is to effect the saving before the tin gets too far from the stamps; this seems to be the great point to be got at, which, if done, a great number of trunking pits and frames (all of which are very expensive to fix and slow to work) can be done without. Several plans have been introduced in order to accomplish this desirable object, but the most effectual I have seen is the one introduced by Capt. J. B. Wilkin. His separator, when properly worked, will effect a saving of more than one-third of the dressing cost. It is very simple, and can be applied to any ordinary stamps for sale. The stuff and water from the stamps run into the separator, and the rough work drops into one pit or strip, while the foul water with the small tin passes off at the top, and, being divided into proportionate parts, is trunked direct. Hence the saving is effected:—1. By the small tin at once taken from the rough and worked direct from the stamps, and then to the frame. 2. More water can be applied to the bottom, and the water can be worked with a greater dispatch, fearer of the small tin being carried off with the extra water, and, lastly, the last set of trunking pits and live or dead frames can be done without. This same separator is equally beneficial to a buddle or washing trunk, and can be supplied as cheaply.
Several are now in operation and working effectually, and, having proved their worth, I venture to recommend them through your Journal, feeling assured if put into general use a considerable saving would be effected.
March 9. A MINER.

PENNANCE CONSOLS.

Sir,—In reply to your correspondent, I beg to state that Pennance Consols is about to be reworked by a respectable company in Cornwall. This mine was worked about two years ago, but through bad management was suddenly stopped and the materials sold, and that at a time when the prospects were never before so encouraging, from the geological position of the mine, with the fine stratum of kyllias, which is so congenial for copper, tin, and lead. At the western part of the mine is the junction of kyllias and granite, all the lodes in kyllias striking the foot of the granite hill, where we may reasonably expect a great deposit of minerals. In Pennance Consols there are five large lodes, all within a line of 70 fms., drawn north and south. It is also worth remark that this set is traversed by fine elvan courses, running parallel with the lodes, and forming the south wall of each lode—the great silver-lead lode, which is 10 ft. wide, producing rich work for silver close to the elvan. It is proposed to divide this mine into 6000 shares, of 5s. each, which will be an ample sum to pay the proprietor for the work done, purchase the materials now on the mine, erect all the machinery that will be wanted, and work the mine for four months. A powerful water-wheel is now on the mine, and can be set to work in three weeks, which will be sufficient power for working the mine until a 30-hp. steam-engine can be erected. In Pennance Consols large cross-courses are very numerous. Mr. T. H. Tilly will be the miner, and Capt. James W. Hunt manager. We hope our capital will be judiciously applied under the present management.—March 10. JAMES W. HUNT.

PROGRESS OF MINING—EAST WHEEL RUSSELL.

Sir,—It is encouraging to those who make mining their study to find that the discussions carried on through the medium of your Journal frequently lead to important results. It is, no doubt, wise to draw as much information as we can from passing events, and to add every fact possible to our present stock of knowledge. A great deal of useful controversy has taken place with reference to the nature and character of the East Wheel Russell vein, one party contending that the gossan was a true gossan, and that it could deceive no person, and that the lode was a good one, and could be turned out to a large quantity of ore in depth; the other, that there was too much iron in the gossan, and that the vein was too much assimilated to an halvan course to bear much produce below. The decision of this question involved a very important consideration for the adventurers of East Wheel Russell; but it appears to me one of far greater importance with reference to the mining community and the advance of science as connected with the knowledge of mining. It has long been contended by some people that success in mining depends upon mere chance, and that a time-honoured maxim of "where it is, there it is" is the best one that miners can have; but, in fact, the unfortunate explorer of the metals is doomed to work in the dark, and to depend entirely upon the doctrine of chance whether his lot will be fortunate or otherwise. On the other hand, it is maintained that mineral veins present in their character at the surface sufficient indications to give those who have studied the subject a good notion of the contents of the veins in such matters as may be relied upon to lead to no serious error or disappointment. In no place that I am acquainted with have the arguments, pro and con, been carried on with more firmness than at East Wheel Russell. One side, and I am happy to say the great mass of gossan in this lode, is maintained either obliquely or perpendicularly upon a corresponding mass of copper ore; other arguments maintain equal probability, that the signs were false and treacherous, and such as could not be relied upon; and that if the company expended their money in following them they would be chasing an ignis fatuus, that would always recede as they advance in pursuit, and at last elude their grasp. Fortunately, it has now been demonstrated by the practical opening of this mine that the latter party was wrong, and that there are already discovered portions of the lode worth for copper from 1200 to 1300 per fm. This is quite sufficient to satisfy the mind of those who held that the mine would be a good one were right; but, in establishing this fact, I do not attach so much importance to it with reference to East Wheel Russell itself as I do to the broader question of the advance and accuracy of mining science.
I understand that the projector of the operations for the discovery of the East Wheel Russell ore also projected those of the Devon Great Consols, Hingston Down, Sortridge, and other mines. Now, if I read the circumstances connected with these mines and this discussion aright, I think it is fairly deducible from them that there is in the phenomena connected with mineral lodes at the surface, and superficial sections of them, often sufficient evidence to judge of the deposit of metal below, and that there are certain men who can read this evidence with sufficient accuracy for all practical purposes; that the judgment of these men may be almost implicitly relied on; that a company selecting a lode for trial, and carrying out the trial to a legitimate extent under such judgment, is almost certain of a successful issue; and that those who throw their money away in illegitimate mining enterprises now-a-days in effect, "Darken" be their lot.

I also wish to advert to another fact with reference to the practical opening of East Wheel Russell, which is of great importance to the mining community. It is that the mine is now in the hands of a man who is instrumental in promoting its prosperity. It would be presumptuous in me to say one word as to the projector of this mine; he is far more capable of having justice done to himself where needed than I could do for him, and I now wish to humble merit. On the different occasions that I visited East Wheel Russell, I found the mine and day agent a man evidently whose heart was in his work, whose intelligence with respect to the lode was conspicuous, and whose confidence in the success of the operations then in progress amounted to a certainty. His name was either Capt. Samuel or James Metherell. On taking me into the work between the Tunnel and Hingstonham's shaft, he recollect he showed me a large lode of not less than 20 ft. wide, filled with crystalline masses of veinstone and grey and malachite copper ore. "Who can doubt," said he, "that this is soon to be a great and rich mine?" Very soon I lost in the reports of the Mining Journal the name of Captain Metherell, the industrious, intelligent, mine agent, and I read those of a man who had been the author of this expression when first I read it. I would not mind whose understanding was so dark that he could not appreciate the difference of crystalline mineral and metal? Of course the company do not follow the track of this meteor, or they would draw up the pumps and sell the machinery. They carry on the operations of Capt. Metherell, as planned by the clear foresight of Mr. Eltchins; place, and, according to the modern hackneyed phrase, "Turn the right man out of the right mining agency ought to do something to testify our concern and respect for a man who has been discharged for speaking the truth and doing his duty. Messrs. encourage great mines make great captains. East Wheel Russell is a great mine, and, if we take his own words, he acknowledges that he does not know a stone of a lode make. When he comes to deal with mining reports in general, is something wonderful to contemplate: confusion worse confounded will be a trifle to it. The position of

granite and kyllias, the parallelism of lodes, the distinctive character of gossans, the structure of the crystalline rocks of veins, will receive high elucidation and clear definition at the hands of this great miner. I should suggest that a few mining agents, who appreciate modern methods, should testify their feelings that it is not treated properly in this case, by contributing to purchase a testimonial for Capt. Metherell; if it were only a pocket dial it would answer the purpose, provided the object for which the gift was bestowed was engraved upon the cover, and I should be happy to send my mine to the office of the Mining Journal, or anywhere where this would be best attained; and, if this be not done, I hope the fact will be by this note registered in your columns, and be of service in checking a growing evil. It will be urged, perhaps, that the mine has been brought to a profitable state under the present agent. That is exactly what I complain of—the Capt. Metherell should have been stopped in his progress towards success, and just before he was able to attain it, the present agent following the lines of Capt. Metherell, and at the same time ignoring their utility until he is landed into a great course of ore, of which no ingenuity is able to gain the value.—March 9. MATTHEW FRANCIS.

THE DALE MINE, STAFFORDSHIRE.

Sir,—Having certain reminiscences of the neighbourhood where the above mine is situated, a few words respecting it at a time when its working is producing some sensation in the mining world may not be unacceptable to your readers. It is to be presumed that much importance (and very naturally so) is attached to the fact that the Dale set is in close proximity to the celebrated Ecton, the latter having been worked by the late Devonshire family about 30 years since, and yielded out of rich copper ore (if I remember correctly) about three-quarters of a million sterling profit, when the "pipe," or lode, becoming exhausted, the ground was abandoned, leaving a name behind it second only to the present fame of the Devon Great Consols. However, about eight years since, a new company was formed to rework the Ecton Mine and Mountain, of which company I was appointed the secretary and pursuer, a portion of such duties being to visit the mine on pay-days and at other times; and very pleasant it was, I well remember, to travel over the romantic county of Derby into picturesque scenery, and to visit the old mine, in Staffordshire, by way of Ashbourne, involving the transit over that bit of classic ground referred to in *Tom Jones*—*"As down this hill, romantic Ashbourne, glides The Derby Dilly, carrying six inside."*

At the end of about three years, however, and when some 500000 had been expended, it was found that explorations of old Ecton were quite useless, and it was abandoned. True, not a spadeful could be used on the hill which did not turn up soil impregnated with strings of rich copper ore, but of no commercial value; and now it would appear to me, reasoning as we go, that the strings of ore in question were merely those which led to the formation of the "pipe," and not leading or contributing to any other large deposit. In the meantime, the deposit in the mine had been completely worked out, leaving a void, or cavity, of dimensions sufficient to hold the cathedral of St. Paul's at least, the bottom being 200 fms. from surface. What, then, has the Ecton Mine in reality to do with the discovery made at the Dale, on the other side of the river? That is the question I will endeavour to answer.

The manager or captain of Ecton, when first visited by me, was Abraham Thompson, then, as I suppose, about 70 years of age, all of which had been spent, I understood, on the Ecton Mountain, but "over the water," that is, he did not look quite far enough for the other leg. The plans published, however, show that had the adit of Ecton been extended across the river it would have intersected the other pipe, which comes to the surface in much the same style as the Ecton, only at a different angle; and the real question now is, what will be the consequences of sinking in Dale to a level equal to the 207 fms. level of Ecton, and, also, what will they find when they drive the adit and levels through the great cross-course (called here the Great "Lum") of 70 fathoms in width? As the Pipe in Dale is descending only, and the present state of the Pipe, and the strings of ore in question were merely those which led to the formation of the "pipe," and not leading or contributing to any other large deposit. In the meantime, the deposit in the mine had been completely worked out, leaving a void, or cavity, of dimensions sufficient to hold the cathedral of St. Paul's at least, the bottom being 200 fms. from surface. What, then, has the Ecton Mine in reality to do with the discovery made at the Dale, on the other side of the river? That is the question I will endeavour to answer.

Perhaps it would surprise the old septuagenarian, who has some time since "been gathered to his fathers," if he could revisit the "glimpses of earth," to find that it was not in Ecton Mountain, but "over the water," that is, he did not look quite far enough for the other leg. The plans published, however, show that had the adit of Ecton been extended across the river it would have intersected the other pipe, which comes to the surface in much the same style as the Ecton, only at a different angle; and the real question now is, what will be the consequences of sinking in Dale to a level equal to the 207 fms. level of Ecton, and, also, what will they find when they drive the adit and levels through the great cross-course (called here the Great "Lum") of 70 fathoms in width? As the Pipe in Dale is descending only, and the present state of the Pipe, and the strings of ore in question were merely those which led to the formation of the "pipe," and not leading or contributing to any other large deposit. In the meantime, the deposit in the mine had been completely worked out, leaving a void, or cavity, of dimensions sufficient to hold the cathedral of St. Paul's at least, the bottom being 200 fms. from surface. What, then, has the Ecton Mine in reality to do with the discovery made at the Dale, on the other side of the river? That is the question I will endeavour to answer.

ECTON AND DALE MINES.

Sir,—So much interest, I may almost say excitement, has been aroused by the recent splendid discovery at Dale, and there is so general a desire to know something about it and its rich neighbour, Ecton, that I am induced to trouble you with a few particulars respecting these twin mines. Tradition assigns to Prince Rupert the honour of having first opened on the Ecton Pipe vein. At that time the hill was more bare of soil and vegetation than now, and the Pipe was discovered at its cropping out at the summit, was found to contain lead ore, and was followed down by such means as were known in those days. There is evidence that these earliest workings were carried on without the aid of gunpowder. The rock, being limestone, was calcined, in the present state of the Pipe, and the water was pumped out. Three adit levels have been driven at different times to take off the water, the last of which, the deep adit, was driven about the middle of last century. The workings were then carried on by the Duke of Devonshire, who sunk below the deep adit on the course of the Pipe, and erected a water-wheel to pump the water. Yesterday I went through the old workings, and down to the 30 fathom level below adit. From the small extent of the workings on the Pipe vein at this part it is evident that the great ore deposit of Ecton was not above the 30. At about this depth Ecton yielded out of rich copper ore, and the Pipe, greatly increasing its productive-ness; but it was not until the 50, at which another cross lode came in, that that immense gulph of ore commenced which has never yet been equalled. From the 50 down to the 80 is now a cavern of 300 yards long, 100 yards wide at bottom, and 20 yards wide at top, showing how the pipe increased as it went down; this enormous cavity was once a mass of lead and copper ore. Between the 50 and 90 the Pipe narrowed, but opened out again, and thence down to the 200 continued to yield ore in immense quantities. The copper ore averaged from 15 to 20 per cent. of copper. Comparing Dale and Ecton Pipe veins at similar depths, so far as the workings in Dale admit, it appears that Dale Pipe has so far yielded more than Ecton. The rich course of ore now being wrought in the 37 is in all probability caused by the junction with Johnson's lode, and corresponds very exactly with the ore met with in the 30, at Ecton. In about 10 fms. deeper No. 2 lode falls in with the Pipe, and at from 10 to 15 fms. deeper still the Pipe will intersect the great Lum, where no one who has seen the two mines doubts but there will be found a deposit of ore rivaling Ecton.

I was underground at Dale yesterday. The lode in the 37 is 4 ft. 3 in. wide, and, with crystalline sand, and 70 fms. of the lode, and "vugs," or holes, lined with crystalline sand, is a solid course of ore; two men can break a ton of lead in a score of eight hours, the great bulk of which requires no dressing. The friable nature of the ore makes it impossible to break a stone which by its size should fitly represent such a course of lead, but a few lumps, such as were attainable, are now on their way to London, and are a fair specimen of the bulk of the lode; they will be placed for inspection in the office of Mr. F. W. Stevens, Royal Exchange.
March 11. J. DICKINSON BRANTON.

ST. DAY UNITED, AND ITS MANAGEMENT.

Sir,—I have for several years been a subscriber to your valuable Journal, during which time I have with great pleasure observed the manner in which you have upheld legitimate mine management, and the unflinching style in which you have exposed that of an opposite character. Such a case, then, of a system of management, so utterly opposed to the true interests of the adventurers, and equally so to the duration of the concern itself, exists in the St. Day United Mines, as call loudly for "One and All" interested therein to bestir themselves, and to demand that a state of things such as now exists should be no longer borne; and knowing no channel through which it could be so well communicated to the adventurers generally as the columns of your widely-circulated Journal, I venture to solicit a space therein for the following remarks.
These mines were set to work about four years since with a paid-up capital of 40,0000, which, with proper management, was considered ample for the full development of that valuable set, and which, if properly expended, would doubtless have led to profitable results, and a lasting boon to the neighbourhood in which it is situated; but, unfortunately, as is too often the case in mining, that inadequate and incompetent persons are placed at the head of affairs, and manage only agreeably to their restricted means, and out-adventurers are led blindfold, with their property depreciated, and indeed rendered almost valueless.
I think, therefore, it is high time that the adventurers should open their eyes to the state of things, as shown in the printed statement of accounts just issued, and see if it be not imperative on them to make some alterations regarding the management, by introducing both operative and finance committees. I say operative committee, because I see by the classification of the labour-sheet that the amount of work done for four months ending August is only 8590; whilst the amount charged for coal alone for the same period is 18631, or nearly double the amount expended in working in those very extensive mines, which should at least employ 500 men in that time, and should yield a profit of 100000, or thereabouts, and a lasting boon to the neighbourhood in which it is situated; but, unfortunately, as is too often the case in mining, that inadequate and incompetent persons are placed at the head of affairs, and manage only agreeably to their restricted means, and out-adventurers are led blindfold, with their property depreciated, and indeed rendered almost valueless.
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only 4½ fms. from the first part of the branch, and 10½ fms. from the south part of it. If they should cut the branch higher in the 162 than in the 110 they ought to go on, but if it should prove poor they ought altogether to abandon the Pembroke Mine.

Mr. KING said the old adventurers got their riches from the 28 to the 110, where they then fell off.

The CHAIRMAN remarked that, after spending 15,000l. upon this part of the property, it would certainly appear that they ought not to abandon it, when they had only 4½ fms. to drive to prove the north part of the branch in the south cross-cut, as would be seen by the plan.

A SHAREHOLDER said he had come 200 miles to attend the meeting, in consequence of having received a letter from a broker that the adventure was about to be abandoned altogether. He could not understand how a broker should know better than the committee itself, but he had offered either to buy or sell the shares at a certain price. (Hear, and laughter.) He was surprised to hear it, as it did appear an act of weakness on the part of the committee, and it had given him great satisfaction to be informed that the information was false. So long as they had not cut the lode they ought to go on; and as regarded the north cross-cut, as there was no outlay for drawing the water, it was a question for grave consideration whether they should even stop that part of the mine. If the lode cut poor in the south he agreed with the committee that they ought to abandon the Pembroke Mine; but he would strongly advise his fellow-shareholders to put their hands in their pockets to pay a call, and work the cross-cut vigorously, both north and south.

The CHAIRMAN said, with regard to continuing the cross-cut on the north part of the lode, it was simply a question of expense. He must confess that the committee and himself were unanimous in the opinion that it was not desirable at present to continue operations north.

The CHAIRMAN said he would give them the probable cost of working both the Pembroke and East Crinnis Mines under three different circumstances. The first was to work the Pembroke and East Crinnis, and in the former drive the cross-cut in the 162, both north and south. Capt. Dale's estimate for six months, ending July, was 9000l. cost per month=1500l. Returns against it, 3900l.; loss for six months, 1500l.; to which add debt as per balance, 7400l. 3s. 3d.; relinquished shares, 3272l. 9s. 4d.=5121l. 12s. 6d. To meet this call of 3s. per share would produce 9523l.; thus leaving a balance against the mine (after payment of a call of 3s.), 161l. 7s. 6d. The next estimate was, if they abandoned Pembroke Mine and worked East Crinnis, the cost for three months would be 900l. per month, and the remaining three 650l., which, with the balance and relinquished shares, would amount to 8627l. 12s. 6d. Against which there would be the sale of materials, 3500l.; six months ore, 3900l.; and call made this day of 1s. (1841l.); leaving at the end of July in favour of the mine a balance of 5787l. 3s. 6d. The third proposition which the (Chairman) had to submit was taking a middle course to work the East Crinnis vigorously, and continue the cross-cut in the 162 south the 4½ fathoms, as shown in the plan. This estimate was made upon three months—Cost, 3700l.; returns, 1950l.; loss on three months' working, 750l.; debt, 7400l. 3s. 3d.=14900l. 3s. 3d. A call of 1s. per share made this day 1841l.; leaving balance in favour of the mine, June 1, 3500l. 16s. 10d. The question, therefore, for the meeting to consider was the course to be pursued. If at the present time they made a call of 1s., they would require another 1s. in three months to work the East Crinnis, which was now proved beyond doubt a valuable mine, and would before that time make good profits. He (the Chairman) would suggest that they should adopt the middle course, and go on with the south cross-cut the 4½ fms.; if the lode should prove valuable, no injury would arise through the delay in the north cross-cut, and it would be a matter for consideration whether they should continue it. But if, on the other hand, the lode should prove poor on cutting it, he believed the shareholders would be of opinion that the Pembroke Mine ought to be abandoned, and that being the case the expense of driving north would be saved.

Dr. McCRAE, in agreement with the observations of the proprietors as to driving both north and south. It was true that many persons were looking to these calls with much apprehension. Yet were they to abandon it, with the hope they had from time to time of success? He was not a miner, and did not know much about it, still it was only 30l. a month extra, and he considered they ought to persevere in the Pembroke Mine as well north as south. He believed they were driving 5 ft. per week, and, therefore, if the ground continued the same the work would not be very difficult, and it was a question well worthy of consideration whether they should stop the north cross-cut or pay the 1s.

The CHAIRMAN said they would not be precluded from working in the north at any time, and, provided they saw anything in the south end to give them hopes, they would proceed in the north cross-cut. As a matter of prudence, he considered they had better stop for the present.

A SHAREHOLDER strongly advised the meeting to adopt the middle course, so ably explained by the Chairman.

The report and accounts were then unanimously passed, and a resolution that the driving the cross-cut in the 161 south should be continued the ensuing three months.

A call of 1s. per share was unanimously agreed to.

Dr. McCRAE, in proposing the re-election of the committee of management for the next twelve months, felt satisfied that every shareholder would agree with him in the great attention they had paid to the interest of the company, the ability with which they had conducted the affairs, and their desire at all times to economize with prudence, as he would remind them that economy might be carried too far. He (Dr. McCRAE) believed that, had it not been for the example of the committee, they would have got tired of the undertaking, and given it up long before this time. (Hear.)

Mr. SUTTON seconded the resolution, which was carried unanimously.

The auditors were re-elected, and a vote of thanks to the Chairman terminated the proceedings.

GREAT HEWAS UNITED MINING COMPANY.

The general meeting of adventurers was held at the offices of the company, Austin-friars, on Tuesday, Mr. R. C. HANAN in the chair.

Mr. CHARLES (the secretary) read the notice convening the meeting, and the minutes of the last, which were confirmed.

The reports of the committee of management, and Capt. Webb, were next read:—

At the usual time for holding the Oct. meeting, your committee thought that by putting it off till the next quarter, with the then prospects of the tin market, they might have it in their power to reduce the balance against the mines, by funds derived from tin sales, after paying the cost, and had that metal not fallen, this desirable result would have been attained. Within a few weeks this metal fell to an extent which reduced the price of our ore from the highest point 125l. per ton, and as our produce is upwards of 16 tons per month, it is easily seen that our hopes of reducing the claims were at once frustrated. At this time your committee had two or three anxious meetings, to discuss the propriety of continuing the extra work, so as to be in a position to take the advantage of a rising market, or to reduce the costs, so as to be within the amount of the returns. Your committee decided that it would be preferable to carry out the works with vigour, so as to improve the value of the property, even if the claims were increased for the time by so doing; and in order to enable you to judge of the value of the tin ground, an estimate of the value of the tin ground opened out by Capt. Webb is annexed, showing the value of the tin, less the costs for returning the same. It is appended, as we wished it to be furnished, in Capt. Webb's own words:—

"The last 30 fms. driving in the 36 fm. level has opened a reserve worth £1320 0 0
Cost in raising, and making it marketable 2160 0 0

Profit £2160 0 0

A piece of ground in the back of the 29, east and west of
Charles's shaft, is worth £3000 0 0

Cost in raising and making it marketable 1850 0 0= 1350 0 0

Total £1410 0 0

We have done preparatory work at surface and underground, which
should be added to capital account during the last six months 1250 0 0

Increased value £1660 0 0

The remaining stock of tin ground is about equal to the stock last opened at the last meeting. I have been careful to keep on the safe side, therefore the mine is worth nearly 5000l. more than six months ago. I have not taken into account the productive piece of ground gone down below the 36 in the western mine, where the 96 is now approaching, neither the new run of tin going down below the 35 east, which the 50 has just begun to lay open. It is more than probable these two points will open out much tin; but until the levels have passed through the same, I cannot estimate its worth.

Your committee hope that the increased value given to your property will be considered by you a sufficient reason for the course pursued. It will be observed that this tin ground before estimated is above the 36 fm. level, and in one mine only. Nothing is said about the western mine, where we have the 56, 66, 76, and 86 fm. levels being driven west in ground whole to the adit—a piece of ground 86 fms. deep—it must be obvious that this is an important reserve; but we trust enough has been said to justify the course your committee have pursued.

THE SALES.—It will be seen by the tin sales that, for the quarter ending Sept., 1856, 28 tons 4 cwt. 3 qrs. 25 lbs. of black tin were sold, and for the corresponding quarter of 1857 the quantity sold was 48 tons 0 cwt. 1 qr. 10 lbs., or an increase during the quarter of 19 tons 15 cwt. 1 qr. 10 lbs.; for the quarter ending Dec., 1856, 24 tons 4 cwt. 0 qrs. 6 lbs., and for the quarter ending Dec., 1857, 47 tons 8 cwt. 2 qrs. 9 lbs., or an increase of 13 tons 4 cwt. 2 qrs. 3 lbs. From July, 1856, to Feb., 1857, the quantity sold was 89 tons 9 cwt. 0 qrs. 17 lbs.=7060l. 16s. 6d.; and from July, 1857, to February, 1858, the quantity sold was 139 tons 1 cwt. 0 qrs. 26 lbs., which realised 9545l. 4s. 2d., being an increase in weight of 41 tons 12 cwt. 0 qrs. 9 lbs., and in money 2094l. 7s. 8d. You will observe the increase in the produce has been continuous and satisfactory. The loss sustained by the late fall in tin is 15500l. With the 36 heads of stamps at work we can return with ease 18 tons of tin per month, but we find it necessary to add 12 more heads at once, which will increase the stamping power 25 per cent., and as soon as that number are at work, it is palpable that the returns must be further materially increased.

AMENTS AND LIABILITIES.—The balance at the bank is 2631l. 17s. 8d.; shares on hand, 4921l. 10s.; spare materials, 1507l.; and the reserves of tin, less the costs of returning the same, 3410l., in addition to what was opened before the last meeting—total, 4316l. 7s. 3d. The liabilities are—merchants, 3666l. 15s. 4½d.; dues, 1091l. 5s. 1½d.; and sundries, 1460l. 15s. 4½d.—total, 5396l. 15s. 14½d.; showing a balance of assets of 9999l. 12s. 2d. Of course you are aware that this sum is not immediately available, your committee would be pleased to be able to reduce the debts, so as to be perfectly independent. It will, therefore, remain for you to decide what steps shall be taken to reduce the liabilities, it must necessarily take many months to do so, through the surplus of tin sales; but if they were discharged, this property would at once command a first-class position.

MARCH 8.—Eastern Mine: Since last meeting, we have brought the steam winding-engine to Charles's shaft in the 29 and 36 fm. levels, and shall in about a fortnight get the kibble to the 56, which has been a great relief to this part of the mine, both for ventilation and discharging the stuff. I am glad to say that in this direction the prospects are good. The south lode in the 20 fm. level is 3 ft. wide, good stamp work. In the 36 it is 3½ ft. wide, good work for the last 25 fms. driving, and continues much the same in the present end; this appears to be a new run of tin, and this end being 30 fms. further east than the levels below or above, looks very encouraging. The lode in the 56 fm. level has been for several fathoms mixed with soft flouken, and unproductive, but in the last few feet it has much improved, and presenting just the same character lode as that going down below the level above. We have increased our stock of tin ground here considerably during the last few months.—Western Mine: In the 96 fm. level we have been driving several fathoms east through a piece of unsettled ground, towards the cross-course, which we expect to reach in a few feet driver driving. The tin goes down below the 86 fm. level is nearly all to the east of this cross-course, therefore we do not calculate to meet with tin before that point is arrived at. In the 86, east and west, we are opening out tin ground. The lode in the 66 fm. level is large, good average stuff. The ground in this part of the mine cannot be opened out very rapidly, being hard rock; but there being so great an extent of set west, and such deep levels going directly into it on the lode (which generally contains tin sufficient to save), a little improvement will make it profitable. We have 70 fms. of backs over the 66 fm. level,

and the 76, 86, and 96 fm. levels below; but this part of the mine is like many hard ground mines in the county, which require time to develop. Of late we have been using much materials in extending the works both at surface and underground. Hitherto our returns have not increased very rapidly, but, from present prospects, we shall continue to increase the tin sales, and this will be done without working unfairly. In taking into consideration the cost and west prospects, with the extent of ore ground immediately before each driving, I must state, as on former occasions, that we are likely to have a profitable mine for many years.—J. WRENS.

A statement of accounts was exhibited, as follows:—

Balance	£ 586 4 0
Calls	200 13 0
Tin sold	7800 15 2
Copper ores	£ 566 8 0
Carriage of ditto	3 5 4=
Hodge and Hoeking	69 13 4
Labour cost, seven months	£ 5849 2 8
Merchants' bills	2175 10 2
Sundry bills	84 16 6
Dues	234 8 11
Sundries	127 11 0=
Balance at bank	£ 263 17 3

Bankers' balance £ 263 17 3
Shares, &c., undisposed of 492 10 0
Spare materials 150 0 0
Estimate of tin ground, less cost of returning 3410 0 0= £4316 7 3
Balances of accounts due to merchants £ 3666 15 4½
Balances of royalties 109 5 4½
Balance of charges, or sundry bills 121 14 4
Balance of Carriages 25 0 0= 3316 15 1

Balance £ 999 12 2
Value of plant £ 7000 0s. 6d.

The CHAIRMAN said, before the adoption of the report was proposed he would make a few observations, more particularly as to the merchants' bills, as at the last meeting they were only 1900l., and upon the present occasion they reached 3666l.; but in all tin mines there must be occasionally a great outlay in timber. The manner in which Capt. Webb carried on the operations was most economical, and he (the Chairman) could fully bear out that he never saw a mine better conducted than the Great Hewas Mine was, both by Capt. Webb and every agent connected with it. He would next call their attention to another circumstance—that no mine had a fair chance unless the back debts were paid, and many were incurred before the present committee took the management, and it was not correct that the mine, under such circumstances, should be carried on out of the returns of tin; and it would, therefore, be a question for the meeting to decide whether they should make a call to discharge some of the liabilities; but it was a matter the shareholders would consider, as the committee intended to leave it wholly in their hands. There was another portion of the report to which he wished to call their attention—the great fall in the price of tin, which had materially affected their position, as there had been a deficiency of 15000l., and the calls that had been made had been principally expended in exploring the mine, as it was only fair to Capt. Webb to state that at least 40000l. had been thus expended, and that the capital of the mine had been increased; and Mr. Charles reminded him of the great increase of the reserves. As regarded the prospects of the mine, he considered, as a progressive one, they were most satisfactory. In July, 1856, they were raising 8 tons, and they were now raising 18 tons, per month, and with the extra stamps in the course of erection, he fully expected they would reach 21 tons per month. The committee were most anxious to carry on the mine, with the view to ultimate profit. He need scarcely add that if the loss of 15000l. in the sale to which he alluded had not occurred there would have been no necessity for a call. The committee would suggest that a call of 2s. per share be made, but he did not wish to bind the meeting to it, and would merely leave it to the consideration.

Mr. HETHERINGTON wished to know when the last call was made?

Mr. CHARLES replied in July, 1856.

Mr. HETHERINGTON: That is nearly two years ago.

The CHAIRMAN, in answer to a question, said they had still 492 shares undisposed of.

Mr. CHARLES observed that, in addition, they had been paying 2500l. a month in exploring the mine out of the returns, which ought to have been paid out of the capital account. He would mention, as an instance of the economical manner in which the mines were at present worked, a saving of 7500l. per annum was effected in the purchase of coals alone. They might have been paying dividends at the present time, but the mines would not have been worth so much by 20,000l., as by opening out in the manner they had done they had a large amount of reserves, and a good and lasting mine.

The report and accounts were then unanimously adopted, upon the motion of Mr. TAYLOR, seconded by Mr. MICHELL.

Mr. TAYLOR said a call of 2s. would produce 15000l.

The CHAIRMAN: Which was less than the difference caused by the fall in tin; and, in addition, more could have been raised had the appreciation not been taken place.

Mr. MICHELL (an auditor), in answer to a question, said he had carefully gone over the accounts, which were kept in a most regular manner, and found every item correct.

Mr. MICHELL wished to know the date to which the accounts were made up?

Mr. CHARLES replied that the merchants' bills were all charged up to the end of Jan. Mr. MICHELL considered that very satisfactory, and was of opinion they had better pay off all the liabilities, and start fair.

The CHAIRMAN said the amount suggested would not enable them to pay off all the liabilities.

Mr. LANSBERG moved, and Mr. WILLIAMSON seconded, a resolution that a call of 2s. per share be made.—Carried unanimously.

The CHAIRMAN remarked that he had just been reminded that he had not said sufficient about the state of the mines. He had been in the habit of going over several mines, but he never saw one conducted more satisfactorily. The engines and machinery were perfect models: everything was in the best possible order, and the whole of the works conducted in the most economical manner.

Mr. TAYLOR, in proposing a vote of thanks to the Chairman and committee, said the shareholders were much indebted to them. They had a fair and honest committee, and he hoped all would duly appreciate it. (Hear.)

The resolution was seconded and unanimously carried.

The CHAIRMAN having acknowledged the compliment, the proceedings terminated.

VALE OF TOWY MINING COMPANY.

The quarterly general meeting of adventurers was held at the offices of the company, Crown-court, Threadneedle-street, yesterday.

Mr. THOMAS FIELD in the chair.

The SECRETARY read the notice convening the meeting, and the minutes of the last, which were confirmed.

A statement of accounts was exhibited, from which the subjoined is condensed:—

Balance last audit	£1085 0 7
Ores sold	2591 2 8= £3676 3 5
Mine cost, Oct., Nov., and Dec.	£1324 8 8
Dues	208 12 0
Sundries	42 16 6
Merchants' bills	445 7 4= 2024 4 6

Balance in favour of adventurers £1651 18 9

The net profit on the three months' working was 5364l. 18s. 2d.

The CHAIRMAN then read the following report:—

MARCH 11.—If at the last general meeting the prospects of this mine would enable us with pleasure to present you our report, we are happy to say that it is not in the least less encouraging than the last. Since the last general meeting Clay's engine-shaft has been sunk about 2 fms.; we have cut a flat, level, and bed-planned from the 50 to the 60, together with a great deal of other timber work in the shaft. We are at present engaged in cutting fire and cistern plates 12 ft. below the 60, and shall as soon as possible get our pitwork changed, when we shall remove the sinking of the shaft, taking the lode with us, as there is not above 3 or 4 feet of ground between to carry down, and we hope our progress in sinking for the future will far exceed the past. The 50 has been driven north 5 fms. 5 ft., through a very large lode, varying from 3 to 6 ft. in width, and at times gives such indications as to warrant any practical miner to expect a fine course of lode; the lode in the present end is 6 ft. wide, a most splendid looking lode, and will produce from 8 to 10 cwt. of lead per fm. The 60 north has been driven 7 fms. 5 ft., through a lode 4 ft. wide, and at times producing saving work for lead; in the past month having a little overthrown with stuff we thought it advisable to suspend it for a month, considering we should be in full time for our pitwork. As this end will let down after driving through the cross-lode a quantity of water, we intend driving this end again next month. The 50, north of the said shaft, has been driven 22 fms. 3 ft. 9 in., and has been communicated to Bonville's shaft; the lode, for the whole of this driving, will produce from 10 to 35 cwt. of lead per fm.; we are at present stopping the back of the said level in two separate places, where the lode will produce the amount named for driving. In the 50, at Field's shaft, we have cut north and south plates and secured them with timber, and driven the said level south 22 fms. 2 ft. 6 in., through a lode varying from 4 to 8 ft. wide, meeting occasionally with fine deposits of lead—a fine-looking lode; the lode in the present end is 6 ft. wide, with lumps of lead, but not to value. In the 50 fm. level, 12 fms. north of the engine-shaft, we have communicated a winze to the 60, the 50, north of Bonville's shaft, has been driven 7 fms. 2 ft. through a lode from 4 to 5½ ft. wide, producing from 1 to 2 tons of lead per fm.; the lode in the present end is 4 ft. wide, and producing 15 cwt. of lead per fm.; the stopes in the back of the said level are producing 30 cwt. of lead per fm.; we are at present engaged in cutting plate, by six men, in order to prepare for sinking the shaft below the 50, where we have a fine lode gone down; we hope to commence sinking next week. The 40 has been driven north of this shaft 4 fms. 1 ft., through a lode from 3 to 5 ft. wide, producing from 3 to 10 cwt. of lead per fm.; the lode in the present end is 4 ft. wide, producing 8 cwt. of lead per fm.; in the winze sinking in the bottom of the said level is 2½ ft. wide, producing 5 cwt. of lead per fm.; the same level, south of Field's shaft, has been driven 9 fms. 2 ft. 6 in., through a lode varying from 1½ to 3 ft. wide, producing from 3 to 10 cwt. of lead per fm.; the lode in the present end is 2½ ft. wide, producing 8 cwt. of lead per fm.; we have put up a rise in the back of this level about 12 fms. behind the end, where the lode will produce from 5 to 20 cwt. of lead per fm.; the lode at present is 2½ ft. wide, producing 6 cwt. of lead per fm., but for want of air we are obliged to suspend it, and remove the men to the 30, where we have about 6 or 7 fms. to drive and sink; the remainder of the ground, which will be about 2 fms., we shall then communicate to the rise, when we shall be able to set two or three good shafts. The lode in the 30 is 1½ ft. wide—poor. The 20, driving west, on the cross-lode, from Clay's shaft, has been driven 14 fms. 1 ft. 6 in., but we have not yet met with any other north and south lode; the ground favourable for driving. We have at present 13 pitches working, by 30 men, at tributes from 40s. to 120s. per ton of lead; the greater part of our tributers are getting good wages, and our prospects throughout the mine are cheering. We have about 30 tons of dressed and undressed lead at surface, and calculate, from present appearances, to sample, on the 27th, about 80 tons of lead.

The report and accounts were then unanimously adopted.

The CHAIRMAN said the next question was what they were to do with the balance? He would recommend that they should divide 10000l., being 1s. per share.

Mr. JOHN KIRK considered that would be the most prudent course to adopt, and they would then stand in a good position at the next meeting.

The CHAIRMAN said, if it had not been for the severe frost, which interfered with the dressing operations, the affairs would have assumed a much more favourable position, as the balance would have been 5000l. to 5500l. better.

Mr. POWELL then moved, and Mr. CLAY seconded, a resolution that a dividend of 10000l. (1s. per share) be paid.—Carried unanimously.

Dr. BRATTON enquired the amount paid per share?

The CHAIRMAN said about 12s. 6d.

Dr. BRATTON said his object was to show that it was a very handsome dividend, and that the mine was doing well.

The CHAIRMAN said there was no question as to the returns reaching 100 tons a month before the next meeting. It was estimated the next sampling would be the 10th of March. Mr. CLAY observed that since Capt. Thomas had resigned the mine had considerably improved under the two underground captains, who, with less supervision, had done better; and it appeared to him (Mr. CLAY) that as these two captains had shown so much zeal it would be opportune to give them an extra 1s. per month, as an encouragement to persevere.

Mr. MITCHELL reminded the meeting that living was very expensive in Wales, compared with Cornwall.

The CHAIRMAN bore testimony to the excellent conduct of the two captains, who well deserved the proposed addition, and he hoped the time would come when Mr. CLAY would be able to give them more.

Mr. CLAY then moved that Capt. Harper and Harvey's salaries be increased 1s. per month each.

Mr. MITCHELL, in seconding the resolution, observed that by strictly looking after the materials and stores, he believed a saving of 5000l. a year had been effected under the present captains.

The resolution was then unanimously adopted, and a vote of thanks to the Chairman terminated the proceedings.

PENDEEN CONSOLS MINING COMPANY.

The quarterly general meeting of adventurers was held at the Auction Mart, Cornhill, Bartholomew-lane, on Wednesday, Mr. W. E. D. CROOKES in the chair.

The CHAIRMAN read the notice convening the meeting, and the minutes of the last, as also a report of the committee meeting, and an abstract of the accounts, which appeared in the Journal March 6.

Mr. BIRDSEY, upon the motion for confirming the minutes of the last meeting, put, moved, as an amendment, that the appointment of Captain Blight as Inspector be rescinded, as the appointment was made contrary to the wishes of the shareholders, and that Mr. Greenwood be requested to give him notice that his services would be dispensed with.

Mr. BIRDSEY seconded the amendment, observing that although a large number of the shares were held in London, they could get no information as to the affairs of the mine, which was appointed by a small number of the local shareholders.

A SHAREHOLDER wished to know whether there was any tangible reason, against Mr. Blight being employed, and whether Capt. Eddy required any other assistance.

Mr. BIRDSEY replied, that Captain Blight lived 30 miles from the mine, and it seldom went there could give very little assistance. The whole of the committee had due notice not to appoint any inspecting captain, and of which they had duly acknowledged the receipt.

The CHAIRMAN considered there was no reflection upon Captain Blight in any way, and he would not move the amendment.

The minutes of the last meeting were then unanimously confirmed, with the exception of that part relating to the appointment of Capt. Blight—thus adopting the amendment.

Mr. CLIFFORD then moved that a London committee be appointed, as the whole of the principal shareholders resided in London.

Mr. WINGFIELD seconded the resolution.

A SHAREHOLDER wished to know whether constituting a London office would involve great expenses for rent, secretary, &c.

Mr. BIRDSEY said, as regarded the office, his would always be open to them, and he would be glad to see a London committee.

Mr. CLIFFORD observed that the committee in the country were wholly composed of merchants, and, however respectable they might be, they were not the right persons to form a committee.

Mr. BIRDSEY said there were two evils in the matter, one having a committee of merchants who had a very small interest in the property, and the other a small committee in London. The worthy Chairman held a third of the mine, and took a great interest in the property of the mine, and certainly in the (Mr. BIRDSEY) considered it would be to insure a small expense in London.

Mr. GREENWOOD suggested that, before carrying the resolution appointing a London committee, they ought to rescind the resolution appointing the gentleman in Cornwall.

Mr. CLIFFORD then proposed that the services of the Cornish committee be dispensed with, and that the best thanks of the meeting be rendered to them.

Mr. ORTON seconded the resolution, which was carried unanimously. A resolution was also adopted, considering it advisable to appoint a London committee. The following gentlemen were appointed:—Messrs. Bawden, Clifford, Paine, increase in the value of the mine, and Birdsey, of London, and Mr. Williams, of Truro, and that three do be a quorum.

The proceedings were then adjourned for an hour, to enable the committee to examine the accounts.

Upon resuming the meeting, the report and accounts were unanimously adopted, and a call of 5s. per share made, out of which it was stated that 3s. per share was required for the steam-whim. Capt. Eddy was appointed manager, and a vote of thanks to the Chairman terminated the proceedings.

Mr. James Crofts sends us his usual weekly review, as follows:—

The writer reports with pleasure some recovery from the depression apparent last week, and although the amount of business transacted has not been very large, equities are both earnest and more numerous. Money appears able to have reached its lowest point, as is shown both by the hesitation of the Bank of England to make a further reduction in the discount rate, and its more extended demand among bankers, money dealers, and in all commercial channels; it is rather, however, less than a marked rise, and little effect will be produced on any description of speculative stocks, the more especially since the railway market is still in a state of symptoms of depression, owing to the falling off in traffic returns—a fact which points to the realisation of that description of stock without delay, as a prudent measure, and a reinvestiture of the funds in more eligible securities. As to the question of the mining market putting forward a claim to spare railway and other capital, it is necessary to reiterate the remark, that setting aside all every speculative view, the class of dividend mines cannot be too often brought into view when it is, or even be, known that they not only offer all the advantages of the choicest national securities in respect to readiness of sale and certainty of return, but that the most profitable security from risk, provided only the sound, well established, and well managed concerns are chosen as the medium of investment.

Of course, it

able as in that mine a great rise will take place in the price of the shares. We do not hesitate to recommend *Virtuous Lady* and *Wheat Bedford* as a speculation offering chances of success of more than an ordinary character. The *Dale Mine* has attracted some attention during the week, owing to the reported extraordinary recovery of lead, supposed to be a similar deposit to that at the *Eaton Mine*.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

AT WHEAT BEDFORD, in the Marazion district, the engine-shaft is sunk to the 60 ft. level. On the late fall in the price of tin the adventurers have prudently stopped all shallow workings on the tin lodes, and the only operations going forward are the sinking of the shaft and driving a cross-cut in the 30 ft. level to cut the main tin lode, entailing a monthly expenditure of about 150*l*. The shaft at the engine-shaft is of a very congenial character; and in about three months the copper lode will be cut in the 60, and the tin lode in the 50. Large quantities of tin and some good parcels of rich copper ore have been sent from the copper lode; but the 60, on the copper lode, coming into a hard iron stratum, the adventurers, very properly and miner-like, determined on sinking the shaft to the 60, at which point there is every reason to believe the lode will again make ore. The setting of a very extensive one (upwards of a mile in length on the course of the lode), the adventurers have recently divided it into two mines, calling the new one *West Marazion*. Here the most rapid progress has been made, for though it is scarcely 10 months since operations were commenced, the back of a fine copper lode has been opened in sinking, an engine-shaft sunk upwards of 10 fms. in a beautiful killas, intersected with quartz, munda, and spots of yellow ore, and a cross-cut driven to a depth of nearly 20 fms., towards the shaft, which it will intersect to a depth of about 18 fms. In driving this cross-cut four branches have been cut, two of which contain good stones of yellow and black copper ore, which will fall into the shaft, a little to the east of the shaft; the shaft will be drained by a line of flat-roads 40-in. engine on the set; and, as there are also upwards of 50 fms. of pit, the company will be at no expense for machinery. The shaft was commenced in the 30, but, from the indications at the shaft and cross-cut, it is proposed to open the lode at the adit and every 10 fms.; and I shall not be surprised to hear that something good has been met with at the former point. Upon these three mines are among the most promising speculations of the day, and in their favour all that one wishes to see in a mining adventure—good prospects and excellent management.

EAST WHEAT RUSSELL.—It is encouraging to find, by the agent's report this week, that the mine sinking below the 66 is improving in value, worth for 120*l*. to 140*l*. per fathom, with indications of further improvement. The 83 will soon be under the valuable shoot of ore gone down in the bottom of the adit and should be cut rich (which is fully expected) a considerable advance will be made in the price of the shares.

NORTH FORTESCUE MINE is likely to prove very productive. There have been four distinct lodes already opened upon—two north and south, and two east and west, and the appearance is everything that could be expected so near the surface. I have had several samples of the gossan assayed, and find it to contain silver, ranging from 10 to 15 ozs. to the ton. The principal north and south lode is remarkably promising, and will very likely produce lead at a shallow depth; and, judging from the results at Fortescue, which adjoins us on the south, there is every reason to expect that as we get down we shall have quantities of silver. It is also to be noted that during the summer the lode will be seen at a greater depth, and that the prosecution of the adventure with energy and spirit. The lease is held 21 years from Christmas last, at 1-15th dues; and as the land is to a great extent unimproved, the damages to the surface will be trifling, which is a consideration. More will be heard of this piece of mineral ground shortly.—W. VEREEN.

RENOUVEAU CONSOLS.—At a meeting of this company, held at Leeds, to decide on continuing or stopping this mine, it was decided by a majority of about one-third that the mine be continued, and a call of 4*l*. per share be made. It is really a property like this, if the reports of the captains and the sales of ore are to be depended on, should be so jeopardised by a few parties who do not understand mining, or whose necessities compel them to abandon such an adventure; both are equally culpable, for ever having joined speculative projects of this nature at all.

LADY BERTHA.—In examining this mine, I was surprised to find the reserves of ore in the back of the 20. There are upwards of 2000 tons there, at 6*l*. per ton, will give 12,000*l*.; while the western end is yielding 8 tons of ore per fathom, worth 50*l*. The same level east is coming into a good course of ore. To the east and east is producing 6 tons of rich ore per fathom, and the western end is coming into the ore ground some 20 fms. from the bottom of the 20. A little to the west and a winze is down 9 fathoms, where the lode produces from 2 to 3 tons of rich ore per fath., worth 10*l*. per ton. It is thus evident that the ore already open is worth three times what the mine is now selling for, and who can doubt that this young mine will ere long become a second *Devon Great Consols*. The sampling will be 100 tons, which will leave a profit of 300*l*. This is an excellent opportunity for capitalists, as the shares are honestly worth 2*l*. or 3*l*.; and by taking at these prices immense profits will be realised. I am also pleased to learn that the committee have secured the entire services of Capt. Metheerell, as from the importance of the mine such is now necessary. He has opened the mine in a very satisfactory manner, and it reflects the highest credit on him. I may say the natural advantages are great, the water power being sufficient to carry mine to any depth.

DEEN OF DART MINE.—Appearances here are much improved of late. The company who worked the mine with the spirit it deserves, dividends would have been declared long since; but few men being employed, slow progress is the sequence. Ore is in the mine, but cannot be followed or extracted without labour.

BRATH UNITED.—The produce of this mine for the last month's work is rather above 4 tons of tin, which fully met the current month's cost. The shaft is run down for another level, and when levels are opened for some little distance returns will increase. A very large proportion of this mine is held in Cornwall, at the present price of shares, few mines present so favourable an opportunity of investment.

DALE OF TOWY.—The prospects of this mine have wonderfully improved during the past three months, and the valuable reserves of lead have been considerably augmented. The 60 is being driven from Clay's to Bonville's shaft, and has just entered the rich and extensive shoot of ore gone down in the 30, north of Bonville's shaft. During the coming three months further important series are expected, and the sampling will in all probability amount to 300 tons of quality lead ore, which will leave a large profit. The mine is likely to become as valuable as any in the principality.

NEW WHEAT FRANCES.—An improvement has taken place in this mine. Shaft sinking on the Garden lode is not more than 3 fms. from surface, and the yielding fine stones of black and grey ore, worth 1*l*. 10s. per fath.; this lode, in distance sunk, has been gradually improving for 14 years, and shows every indication of becoming very productive. The mine is situated at the junction of the granite, having the lodes of South Frances and the Bassets.

AMBLEY HILL MINE (Devon) made her first shipment of ore to Swanage last week, a cargo of about 48 tons being sent off. It is expected to ship about as much next month, as that quantity can easily be returned, if the severe weather breaks up. As soon as the dressing machinery is erected, the returns may be sent to 100 tons monthly without sinking a foot, there being thousands of tons raised above the adit. The best criterion of the value of a mine is its returns, which this mine will ere long prove most satisfactorily to its proprietors, and it is out of the district, or is rather in a proscribed one.

WADDEN MINE continues rapidly to improve, and will ere long be a dividend stock. Both ends of the 10 ft. level are reported as having greatly improved during the week. The sale for this month, 174 tons, is expected to fetch 10*l*. per ton average, if no reduction in the standard takes place. Next sale is about, or exceed, 200 tons, whilst the expenses for surface operations will be diminished. Facts like these prove the old adage, "There are as good fish in the sea as have been taken out."

EMMA EXTENSION.—The end of the adit level has further improved since our last, and again making its appearance. There is now a good run of ore to have gone down in the bottom. This is very encouraging, and the mine as developed to be equal to the great *Emma* lode.

DALE LEAD MINE.—The extraordinary discovery in this mine still continues. The lead ore in the end of the 37 is now the full breadth of the level, 4 ft. probably extends still further on each side; this end cannot be valued at less than 200*l*. per fath.; as the level is extended immense quantities of ore can be stepped from the surface and downward. As the ore was first discovered in the upper part, and is going down and down at present, it is estimated that two men can break 1 ton of ore market in eight hours, but this quantity will be greatly increased as the level is more developed, and a larger number of men can be employed. We are inclined to think this discovery has made an immense sensation in the district, as well as at Liverpool and Manchester.

WEST FOWEY CONSOLS.—The prospects at this mine are exceedingly bright, and it bids fair to become as valuable a property as its rich neighbour, *Consols*.

WHEAT EDWARD.—The prospects at this mine are very good. The lode at the shaft (3 to 9 ft. wide) is valued at about 100*l*. per fathom, and is expected to be as rich as ever. The slide which recently disordered the lode at shaft has nearly disappeared. The 61 east is being driven on a good course, and several other important points on this champion lode are being rapidly opened. A dividend of 5*l*. will be declared at the coming meeting (this month), various points of operation on the north lode are looking very well, and there is no doubt this mine becoming a good dividend-paying property.

WHEAT TREGUEN.—The first instalment of 2*l*. per share, payable at 6d. monthly, has been very well responded to, and it is hoped the total amount will be paid to the satisfaction of the mine. The constitution of the company prevents the directors from making a call. The additional 2*l*. per share will yield 1400*l*. and, by the directors, are directed to create 2800 new shares, to give the subscribers one share for every 10*l*. paid.

PROVIDENCE MINES.—A new 40-inch engine is now making at Harvey's, Hayle, for these mines, where the new engine is being erected with expedition. The carpenters and smiths' shops, with account-house, are completed, and all goes on well.

GREAT CARADON AND SLADE MINE we are glad to hear, is proving very favourably, it having been reported to us that the shaft is now down 4, and a pit is being cut preparatory to resinking the shaft, to intersect the lode to be 30 or 35 fms. in depth, where abundance of copper ore may confidently be indicated, which has been examined by experienced miners and captains, and is as good as certain. The lode is expected to be as shallow a depth, and the south lode of South Caradon Mine passes longitudinally through this set, which is 1*l*. mile at least in a short time become a very valuable property.

LADY BERTHA MINE has, by order of the committee of management, been inspected by Capt. Joseph Hodge, who, after explaining the position of several points of operation, reports that it is quite perceptible that the ore is already opened, and that the mine is in a state to meet the expenses of the additional prosecutions as he recommended, and leave, probably, a balance in the hands of the adventurers; while so progressing, in fact, there is every facility for the future samplings, which should be attended to. There is ample ma-

chinery erected to carry the mine to a great depth, consequently the greatest perseverance should be applied to sink deeper, and extend levels east and west. The prospects of the mine in general are such as to warrant any amount of outlay to be made that should be required for legitimate prosecution, but he concludes that ere long a most permanent and profitable mine will be established, without further calls being made; but the more profitable returns of profit will be made while progressing to this desirable object.

The *TRETOIL MINES* will sample about 70 tons of copper ores next week. The rich iron lode continues its productiveness; from 300 to 400 tons are now ready for sale.

The *WEST CHINNIS* and *RECENT MINES* are looking well: 100 tons of ore will be sampled in a few days, with every prospect of a continued increase.

DALE LEAD MINE (Limited).—This mine is now fairly proved to exceed in richness, at the same depth, the celebrated *Eaton*, adjoining, from which the late Duke of Devonshire realised above 60,000*l*. per annum for so many years. The main, or Pipe vein at Dale being larger, and according to Captain A. Thompson, who gives it his decided opinion, it will outlive that truly wonderful mine *Eaton*, which produced the largest mass of ore in Great Britain. There are two side veins found very productive, and being worked on tribute, all of which will be intersected by the great *Lam*, or cross-course, 70 fms. wide. Mr. J. H. Hitchens has given it as his opinion that at the junction a large body of ore will be found. The sum available for the future development is ample—3500*l*.; this, with the increased returns of ore, will ensure a profitable result to all who invest. The majority of the shares are held by influential gentlemen of the locality, who hold for investment. The lead holds splendidly; we have it 4 ft. solid, how much larger we cannot say.

At *ANGARRACK CONSOLS*, a fine lode has been passed through at the engine-shaft, 5 ft. wide. The machinery and erections are completed, and the works are proceeding satisfactorily.

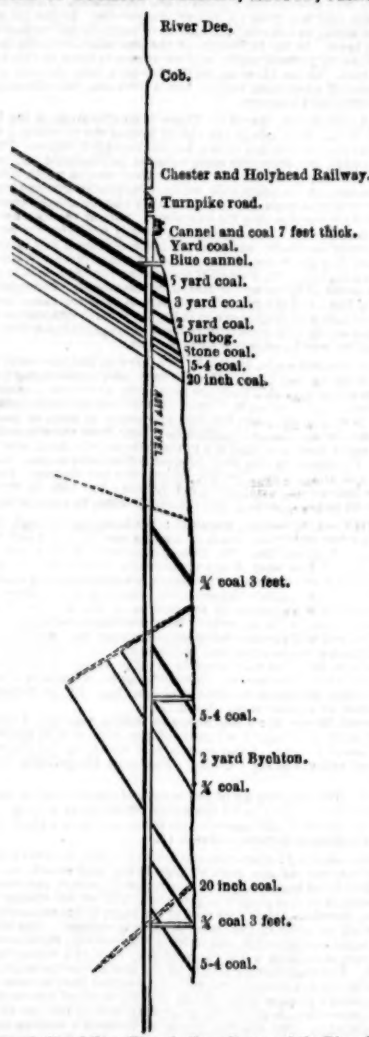
MILL POOL MINE.—The balance of 78*l*. being in favour of this mine is very satisfactory to the adventurers. It is likely they will be amply repaid for their perseverance. The mine from the commencement, and during the high prices for its shares, never looked so well as at present: dividends will now surely accrue.

EAST RUSSELL is still improving in bottom of the winze in the 60, and likely to continue. If the 88 had been driven, as advised some time since, East Russell would be now one of the best mines in the district.

COAL AND IRON MINING IN FLINTSHIRE.

In our last Journal we briefly alluded to the prospects of the *Bychton Coal*, Cannel, and Iron Company. During the week a mining engineer of some celebrity in the locality has carefully inspected and reported on the colliery; and, after alluding to the value of the coal seams, which no one doubts, he says the iron ore in the estate is nearly inexhaustible, and of very good quality. In our previous notice we stated that the aggregate thickness of the seams of coal exceeded 70 ft., and now subjoin an illustration which will show the manner in which they are deposited, and the facilities offered for advantageously working them.

SECTION OF BYCHTON COLLIERY, MOSTYN, FLINTSHIRE.



The close proximity of the colliery to the railway and the River Dee will ensure a ready means of transporting the produce at a merely nominal rate. We learn that negotiations have already been commenced with certain ironmasters with regard to the sale of stock, and that the prospects of success are considered highly favourable. A principal shaft, of 12 feet diameter, bricked and set with *Aberdwr* lime, has been completed, and is now working the 5 yard coal. The 3 yard coal is being worked by another shaft; and a third shaft has been sunk to work the *Cannel* coal. The superior quality of the *Mostyn* coal is well known, and the steam coal at these collieries is said to be equal to that of *South Wales*.

THE CARWAY AND DUFFRYN STREAM COAL COMPANY.—The manager this week reports that the survey of the properties belonging to this company is now complete, and the plan showing the underground working of the several collieries is being prepared. The vein is 9 ft. thick of pure anthracite, eminently adapted for melting, lime burning, and steam-engines; and the length of the vein on the property of the company is one mile and three quarters, and the breadth nearly one mile, containing sufficient coal to last more than 100 years, with a raising to the surface of 500 tons per day. From the present four perpendicular and sloping shafts, when the whole machinery now erecting is completed, there may be easily raised from 150 to 200 tons daily. The whole of the machinery, there is no doubt, will be at work within a month from this date. The present raisings average 300 tons weekly, and the demand exceeds that quantity, but the order from *Brighton* for 1000 tons can be executed within a month. The foundation for the new engine is progressing satisfactorily, and the shaft nearly completed, and the ground for the workshops and offices is marked off. From the *Carway Pit* the coal is all that can be desired, and large and small in equal proportions. The *Duffryn Pit*, he expects, will be similar when the machinery can be brought into use. From the *Hamgreen Pit* the coal continues of the same character, and a large demand may be expected during the next five months for lime burning purposes in the district. From the *Forest Mine* he expects the coal to improve week by week; at present it is quite as good as anticipated. The railway siding to the weigh-engine is nearly completed, and, when finished, will be of great value to the company. The stock of large coals at *Pembrey* is much reduced by the sales, but at *Tycoch* and *Kidwelly* the demand is well supplied, and the manager's attention will be directed to furnishing a sufficient stock at the railway, and to meet the season's demand. The machinery is in good condition, and the several party levels and shafts are being brought into good working order.

The *WORKINGTON HEMATITE IRON COMPANY* are now making iron. Their first furnace was put in blast about three weeks ago, and so far, under Mr. Thorburn's management, the result is most favourable—114 tons of excellent iron were made the week before last: some of which, No. 1 pig, has been sent to *Lewes*, where Mr. Fletcher will, doubtless, give a good account of it.—*Whitehaven Herald*.

Mining Correspondence.

BRITISH MINES.

ABBEY CONSOLS.—J. Trewin, March 8: The lode in the 10, west of the eastern shaft, is not quite as good for lead as stated in my last report; worth at present about 9 cwt. per fathom. There has been no lode taken down in the adit level, west of the engine-shaft, for the past week. The lodes in the back of this level are yielding 7 cwt. of lead per fath. The lodes in the back of the adit, west of the eastern shaft, are worth 5 cwt. of lead per fathom, and have an appearance of improvement. No. 1 lode is worth 10 cwt. of lead per fath. No. 2 lodes are worth 6 cwt. of lead per fathom. We have holed the eastern shaft to surface.—P.S. We have not been able to dress any ore for the last fortnight, the weather has been so severe.

ALFRED CONSOLS.—M. White, T. Trelease, T. Hoeking, March 10: There is no change to notice in the 160, at Field's engine-shaft, since the last report. The north lode in the 140, west of cross-cut, is just as for some time past. This lode in the 130, west of cross-cut, is worth 15*l*. per fathom. This lode in the 120, west of cross-cut, is worth 7*l*. per fath. The north lode in the 140, east of the flookan, is worth 20*l*. per fath. The main lode in the 120, east of Davey's engine-shaft, is worth 80*l*. per fath. The north lode in the 110, east of this shaft, is worth 80*l*. per fath. This lode in the winze sinking under the 100, east of this shaft, is worth 15*l*. per fathom. The main lode in No. 3 winze, sinking below the 100, east of this shaft, is worth 65*l*. per fath. The south lode in the 110, east of said shaft, is worth 20*l*. per fath. All other parts of the mine are just as for some time past.

ANGARRACK CONSOLS.—J. Barratt, March 10: During the past week we have sunk through a lode at Cox's engine-shaft, bearing east and west, dipping north; its composition is flookan, prian, and munda, with occasional spots of lead, its breadth is 5 ft., and a promising lode. The end being driven west on new counter is 5 inches wide, much better. The lode in the end being driven east on new counter is 3 inches wide, composed of quartz and munda, containing a little lead, and let to sink to six feet and three boys at 10*l*. per fath. The western end to one man and one boy, at 3*l*. per fath.; the eastern end to one man and one boy, at 3*l*. per fath. The ground in Cox's shaft, and in both ends, is at present much more favourable, and can be wrought with less expense.

ASHBURTON UNITED.—Wm. Hoeking, March 10: At our monthly setting, on Saturday last, the whole of the pitches were retaken at tributes varying from 10*l*. 6d. to 12*l*. 6d. in 1*l*. Mr. Eales's tender for erecting the engine-house, &c., is accepted, and the buildings will be immediately proceeded with.

BALLYMONEEN.—W. Barkla, March 6: The ground in the 15, driving east and west, is rather slow for opening, and without any change for sulphur. In consequence of the hardness of the ground I expect we shall not hole the winze for some days. The east level has been driven since last report 2 ft.; total, 8*l*. 6s. 6d. The west level has been driven since last report 2 ft.; total, 6 fms. 4 ft. 11 in. We are making every necessary preparation for sinking a winze below the 15.

BALLYVIRGIN.—D. Macdonald, L. Fellow, March 4: The west cross-cut from the bottom of the engine-shaft has been driven 43 ft., the ground is very good ore again, and the south lode looks well, though containing only spots of ore. The lode in the north end is 4 ft. wide, and is worth at present 15 cwt. of lead, 10 cwt. of copper, and 7 tons of munda per fath.; the lode appears to be still turning round to the east. No. 2 lode is suspended, and the men brought back to rise for another stop from the south end of the horse of lime-rock, this we shall call No. 1 lode in future; this ground is worth 1 ton of copper, 5 cwt. of lead, and 10 tons of munda per fath. No. 3 lode is worth 1*l*. 10s. of copper, 15 cwt. of lead, and 6 tons of munda per fathom. We have holed through about 3 ft. in the floor of the south drift; the lode here is worth 1 ton of copper, 10 cwt. of lead, and 7 tons of munda per fath. We have stopped to about 8 ft. south of the winze, and have a very promising lode of copper ore, to all appearance making good, it is worth fully 2 tons of copper of first rate quality per fath., and which can be put to pile without any dressing. In consequence of the very severe weather, the dressers, with the exception of those under cover, have had to leave off work. We have crushed 3 tons of lead and 2 of copper, and have just put to pile 2 tons of copper ore and 20 tons of munda. The severe weather has also prevented us loading the *Roscoe Castle* this week as we intended; we hope to have her dispatched early this week.

BAMFFYLDE.—C. Hand, March 7: The lodes in the 40 have become poor, and without ore, but the *Poltimore* lode will most likely make very good ore again, soon, and the south lode looks well, though containing only spots of ore. The lodes in the back of the 40 and the winze have improved, and are looking well. The lode in the 60 west also contains spots of yellow and grey ore. The cross-cut in the 60 south is not yet in lode, but increased water is flowing. The bolterous state of the weather has prevented us from shipping the ore ready a fortnight ago.

BEDFORD CONSOLS.—J. Hodge, J. Mitchell, March 11: Adit End: There is no change to report on at this point since our last, the end is set at 4*l*. 15*l*. per fath.; the appearances are very encouraging indeed, and we doubt not but that ere long we shall be able to write much better news from this point.—South End: At this point no lode has been taken down since our last; however, we have every reason to believe that the lode quite equal in value to that stated in our last—30*l*. per fath.; set at 8*l*. per fath.—Middle Adit: The lode at this point is still hard, and poor for exploring; we intend to drive by the side, where, no doubt, the ground is better; the end is set at 8*l*. per fath. We have put four men to sink a winze in the shallow adit at the point of horse; but at present we can say but little about it in time for the meeting on Monday next. This, as well as every other point, shall be explained.

BODCOLL.—F. Evans, March 8: Evans's shaft was sunk last week 3 feet, making the total depth 11*l*. 6s. fathoms; lode promising, with spots of lead. The water is still in the 10, on account of the severity of the weather.

BOG MINE.—E. Rogers, March 11: There is no material alteration in either of our tutwork bargains since survey day. The lode in the rise in the back of Perkins's level, is about 2 ft. wide, and worth for lead and blende 30*l*. per fathom. In the end driving east in the same level the lode is 18 in. wide, worth for lead and blende 30*l*. per fathom. We have not yet had any applications for the pitches in the back of the level. The weather is so severe that we cannot do anything at surface, but so soon as any change occurs we shall commence crushing the ore, and removing the whim to Perkins's shaft.

BOILING WELL.—J. Delbridge, March 6: In the 20, east of Syrett's, the lode is from 3*l*. 4 feet wide, yielding lead, blende, and stones of copper ore. In the 20, west of ditto, the lode is 1 ft. wide—tribute ground. In the 30, east of Austin's, the lode is from 20 in. to 2 ft. wide, tribute ground. In the 30, west from Syrett's, the lode is 2 ft. wide, tribute ground. In the 40, east of Austin's, the lode is 20 in. wide, yielding some fine work for lead, with a very good appearance. In the 50, east of No. 2 cross-cut, tribute ground; in the 30, east of No. 3 cross-cut, tribute ground. In the 50, east of King's, the lode is from 20 in. to 2 ft. wide, yielding lead, blende, and stones of ore. In the 60 west of the lode is 3 ft. wide; in the 60 cross-cut we have cut the wall of the lode to-day, but cannot report on it yet; in the 60 cross-cut south no lode yet. In sinking the engine-shaft the ground is favourable; the lode is from 5 to 6 ft. wide, yielding stones of copper ore. We are driving a 20 cross-cut to cut the south lode, which we hope to meet with in a few days. Other parts of the mine are without change to notice.

BRONFLOYD.—M. Barbary, March 11: The south lode in the 17, west of No. 2 shaft, is not looking quite so well as when last reported on, yielding now about 1/2 ton of ore per fath.; we have commenced rising in back of this level by four men, at 3*l*. per fath., and the lode for the breadth of the rise will yield about 1/2 ton of ore per fathom. The severity of the weather still continues, and our surface operations are suspended.

BRYNAIL.—J. Roach, March 16: The 10, driving east of No. 2 cross-cut, on the north part of Brynail lode, continues the same in appearance as when reported upon last week. I hope to resume sinking the winze under the 10 in a short time.

BWLCH CONSOLS.—R. Northey, March 8: Our surface work has been completely shut up all last week. I have put a great number of men to-day to clear the lode, if possible, and get the water down. The underground operations are looking just the same as last report. We have holed the winze to the 60.

CAMBORNE CONSOLS.—Wm. Roberts, March 9: The following bargains were set on Friday last:—The 30 to drive east on the counter by six men, at 15*l*. per fath.; lode small. The 20 west, on ditto, by two men, at 10*l*. 10s. per fathom; the lode is 1 ft. wide, at present unproductive. In the 10 west the lode is 1 1/2 ft. wide, composed of spar and flookan, with occasional stones of ore. A winze to sink under the 10 by four men, at 3*l*. 10s. per fath.; lode small.

CARADON CONSOLS.—Wm. Rich, March 9: Harris's lode, in the 35 east, is divided by a horse of granite in two parts; the north part, which is about 15 in. wide, is composed of kindly floor-spar, peach, and spots of ore. This seems to be the main part of the lode, and has a very promising appearance. There is nothing new in the 35 cross-cut south since last report. The ground at present is rather stiff for driving. The lode at boundary shaft is still small, and appears to be inclining north more than usual.

CARMARTHEN UNITED.—T. Williams, R. Sanders, March 11: We have set Harris's engine-shaft, and, in consequence of the lift to the 12, at 10*l*. 10s. per fath. We are now about 9 ft. under the 7, and hope if the ground continues favourable for sinking to complete the lift in about five weeks, when we shall be deep enough to drain all the old workings, and where we also intend to cut a plat, and drive north and south on the course of the lode. The lode at the shaft is about 5 ft. wide, producing good saving work for lead. The winze sinking in the bottom of adit is down 2 fathoms; lode 3 1/2 feet wide, producing some good stones of lead, and has every appearance of improvement. Owing to the severe frost and snow our dressing is quite at a stand still.

CASTELL.—J. Lester, March 8: Owing to the continuance of such severe weather we have done nothing since last report. Our works being all open to surface, and in such an exposed situation, I thought it better to stop altogether until a change takes place. This morning everything is covered with snow.

CATHERINE AND JANE CONSOLS.—Richard Harry: In the slopes south-east of No. 3 winze the lode is 8 feet wide, composed principally of spar, sulphur, blende, and lead ore, producing of the latter 12 cwt. per fath.; this lode has a very kindly and promising appearance. The cross branch is yielding at present about 8 cwt. of ore per fath. There is no change to notice in any other part of the mine since last report.

COLLAICOMBE.—S. Mitchell, March 9: There is no alteration to notice.

CWM ERFIN.—March 9: The sharp frost prevailing in this locality has quite put a stop to all surface operations, and very much impeded the working below, by not being able to bring away the stuff. The lode in the 57, east of drawing shaft, continues as when last reported. The slope in the back of this level, west of the winze lately holed, yields a half ton of lead ore per fath. The lode in the 45, going east of cross-cut, is at present small and unproductive. The slopes over the back of the 45, east and west of the cross-cut, continue to yield 15 cwt. of lead ore per fath. The slopes in the back of ditto, and 12 fms. east of the cross-cut, yields 1 ton of lead ore per fath. The slopes in the back of ditto, and 17 fms. east of the cross-cut, yields 1 ton of lead ore per fath. The 33, going east of cross-cut, has passed through about 5 ft. of good ore lode during the past week, but at present the lode is small and unproductive. The south part of the lode being taken down west of the cross-cut contains some good bunches of ore, and further trial is required to prove its value. The lode in the rise over the back of the 62 has been somewhat improved since last report, yielding at this date full 1 ton of lead ore per fath. The slope in the back of this level, east of the cross-cut, yields 1 1/2 ton of lead ore per fath. No alteration in the 20 cross-cut since last report. We sample this day 20 tons good quality ore.

CWM SEBON.—J. Boundy, March 6: I have nothing new to notice in any part of the mine since last report, than that the weather during the week has been very severe. Our pumping-wheel has been at a stand-still since Tuesday last, in consequence of which the water has risen 6 fms. above the back of the 66. There is at this time a little alteration in the weather, and I am trying today if we can set the pumping-wheel to work. All the wheels in the neighbourhood have been idle in consequence of the severe weather.

Figure 1. Aerial view of the study area. The area is divided into four quadrants (A, B, C, D) by the main road and the river. The area is also divided into four sub-quadrants (A1, A2, A3, A4) by the main road and the river. The area is also divided into four sub-quadrants (B1, B2, B3, B4) by the main road and the river. The area is also divided into four sub-quadrants (C1, C2, C3, C4) by the main road and the river. The area is also divided into four sub-quadrants (D1, D2, D3, D4) by the main road and the river.

WEST POWEY CONSOLS.—J. Puckey: We have raised, in driving and raising only on Puckey's lode, about 10 tons of tin, which is more than half a ton of tin per f.m.; a portion of this has been sold. It is evident from all reports of this mine, that we have a valuable and extensive piece of mineral ground here about this point, sufficient of itself to warrant the erection of extensive stamping power, had it not been with our close relationship with Par Consols, more particularly as we are driving a cross-cut to prove the same lode 10 fms. deeper perpendicularly, or 15 fms. according to its underlay, from Puckey's north shaft, and will require from 8 to 10 months to properly accomplish; consequently we, being able to return it elsewhere for the erection for the present of powerful steam stamps at the sole expense of the 100. In the copper part of this mine we have sunk Protection engine-shaft to the 100, and have commenced driving east and west on Protection lode; the western end turning out about 1 ton of ore per f.m. This end is improved since our meeting, and will now turn out 2 tons of good ore per f.m. We have also cut the same lode at the 100, south of Deeslie's lode, and have commenced driving east and west on it; the western end is producing 1 ton of good ore per f.m., and in the eastern end we have met with good stone. A big vein of copper has been discovered, and is very important fact; the 100, on Stephen's lode, west of Meredith's shaft, in the Earl of Mount-Edgemount's and Carthew's land, in Par Consols, has lately improved and is now worth 60*l.* per fathom. This lode is leading directly into West Powey Consols, and is at a very short distance from it.

WHEAL FRIENDSHIP.—The lode in the 230, east of Taylor's shaft, is 2 ft. wide—poor. The lode in the 230, west of Taylor's shaft, is 1 foot wide—poor; this end we have stopped for the present. The lode in the 170, east of Taylor's shaft, is 2 ft. wide—poor, and will yield 1 ton of ore per fm. The stop in the 170, on the north branch of the south lode, is stopped; we have set a winze to sink below the level. The stop in the back of the 170, on the south lode, is set on tribute. The stop in the back of the 150, at St. Iff's shaft, on the middle lode, will yield about 1½ ton of ore per fm. The lode in the 50, east of Brenton's plane, on the old north lode, is still poor.

GREAT WHEAL VOR UNITED MINES.—A circular has been issued detailing the proceedings of the committees of management and investigation since the last meeting, from which it appears that Capt. Thos. Gill, who has been trained from the "pick and gad" under the auspices of Mr. John Petherick, and has been for many years inspector of mines for the Duchy of Cornwall, is appointed chief captain of the mine. Capt. John Old was appointed captain tin dresser; Mr. Argall, from the Polpoorth Mines, chief clerk; Mr. Truran, of the Ding Dong Mines, junior clerk; Mr. Hawken, of Treasavan Mine, storekeeping clerk; and Mr. Chas. Parry, inspecting auditor at the mines. With regard to the London management, it is intended to propose that one of the committee should be a managing director and Chairman at a fixed rate, to give him constant superintendence at the office in London (having the assistance of one or two clerks), occasionally to visit the mines, and to be a responsible officer. The other committee men to be also paid for their attendance.

of 71.7a. per month. Capt. Pulling

underground agent, and dilier, at a salary of 7l. 7s. per month. Capt. Phillips reported favourably of the mine.

At the Vale of Towy Mining Company meeting, yesterday (Mr. Thos. Field in the chair), the accounts showed a balance in favour of company, 1661l. 11s. 6d. A dividend of 1000l. (1s. per share) was declared. The proceedings, which are detailed in another column, terminated with a vote of thanks to the Chairman.

At North Levant Mine meeting, on Feb. 24, the accounts showed—Labour cost, Oct., Nov., and Dec., 7704. 4s. 3d.; materials, 2151. 10s. 11d.; doctor and club, 71. 6s. 9d.; 1893. 1s. 4d.; and tin ore sold (from dec.), 1875. 8s. 5d.; tin ore sold, 15. 6d.; gross of calls, 482. 8s. 4d.; leaving balance against the mine, 667. 14s. 4d. Captain B. James and J. Bennetts reported that the engine-shaft, after opening good tin ground, and the winzes in the middle adit and deep adit were being sunk so as to reach the next level at the same time as the engine-shaft, which, when communicated with, will lay open a long run of tin ground for cheap and advantageous working; and that a gradual increase in the returns will be made.

At North Pool Mine meeting, on Tuesday, the accounts showed—Balance last audit, 2027. 9s. 9d.; mine costs and merchants' bills, Nov. and Dec., 10377. 12s. 7d.=12405. 2s. 4d.—Ore sold, 3611. 11s. 6d.; leaving balance against the adventurers, 6587. 10s. 10d., which it was resolved to *pro rata*, being equal to a call of 6. 7½ d. per share. The manager suggested a mode of lessening the costs by employing the miners on piecework, when it was intimated that the most satisfactory course would be to reduce the agents' wages to 157. 1s., instead of paying them 377. monthly, as at present. The pursuer admitted that the charges for agency at North Pool were excessive, and stated that the adventurers should have no just cause for complaining of them in this respect for the future.

At Gonamena Mine meeting, on March 4, the accounts for Nov. and Dec. showed—Balance last audit, 117. 17s. 8d.; copper ore sold and carriages (balancing 714. 12s. 9d. dues), 10768. 19s. 10d.=10784. 71s. 6d.—Labour cost, 7521. 2s. 4d.; materials, 241s. 6s. 9d.; leaving credit balance, 494. 8s. 1d. The mines have been inspected by Captains R. Knapp and H. and W. Taylor, and reported upon by them, as also by the agents, Capts. R. Pascoe and M. George, Junr. The prospects of the mines are said to be encouraging, and it was anticipated that 185 tons of ore would be shipped in the following week.

At Treloy Consols quarterly meeting, on March 3, the accounts showed—Balance last audit, 164. 12s. 2d.; labour cost, Oct., Nov., and Dec., 4561. 11s. 11d.; materials, 1601. 77s. 9d.; surgeon and club, 51. 9s.=4919. 7s. 10d.—Tin ore sold, 4837. 17s. 9d.; leaving balance against mine, 1337. 10s. 1d. The cost for the three quarters will be about met from present appearances, with the improved price of tin.

At the Pendon Consols Mining Company meeting, on Wednesday (Mr. W. E. D. Cumming in the chair), the accounts, which appeared in the Journal last week, were passed. A call of 5s. per share was made. The proceedings, which are detailed in another column, terminated with a vote of thanks to the Chairman.

At Prideaux Wood Mine meeting, on March 3, the accounts showed—Balance last audit, 977. 13s. 10d.; mine cost and merchants' bills from May to Dec. last, 16887. 13s. 7d.=26667. 7s. 5d.—Calls received, 1912. 10s.; tin sold, 4367. 2s. 4d.; leaving balance against mine, 3777. 15s. 1d. A call of 5s. per share was made.

At Mill Pool Mine meeting, on Tuesday, the accounts showed—Balance last audit, 1157. 8s. 11d.; by tin sold, 2132. 11s. 4d.; materials sold, 1237. 5s. 4d.=2374. 5s. 7d.—Mine cost, Aug. to Nov., 1717. 15s. 4d.; merchants' bills, 556s. 10s. 11d.; land destroyed, 371. 10s. 1d.—Collector's bill, 2s. 2d.; leaving balance in favour of adventurers, 735. 5s. 4d. Capt. M. W. Oats, junr., reported that the prospects of the mine were better than at any time since working.

At Varner Mine meeting, on Tuesday (Mr. W. F. D'Arcy in the chair), the accounts showed—Balance last audit, 2874. 19s. 6d.; mine cost and merchants' bills, Aug. to Dec., 4352. 6s. 7d.=7227. 6s. 1d.—Call received, 4907. leaving balance against adventurers, 2343. 6s. 1d. A call of 2s. per share was made. Captain James Hampton reported that the dressing-floors were in a forward state, and dressing was commenced. They would have before the next meeting 20 tons of copper ore to treat.

ple. It was his conviction that ere long they would have a good mine, and one that would handsomely remunerate the adventurers.

At Wheal Rosh meeting, on March 3, the accounts for 3 years ending Dec. showed—Mine cost, 1156*s*. 7*s*. 4*d*.; coal, 140*s*. 10*s*.; merchandise, 436*s*. 19*s*. 11*d*.; commission, rents, law, &c., 182*s*. 12*s*. 4*d*.; 1896*s*. 3*s*. 11*d*.—Total, 1891*s*. 6*s*. 4*d*.—leaving loss, 1015*s*. 3*s*. 7*d*.; debit, last dividend, 118*s*. 5*s*. 11*d*.; readily paid out to £8*s*. 8*d*.—leaves now against adventurers, 1436*s*. 11*s*. 4*d*. A call of 5*s*. per share was made.

At Respyrn Mine meeting (Mr. Wm. Hicks in the chair), the accounts showed—Mine cost, Oct., 25*s*. 17*s*. 2*d*.; Nov., 60*s*. 8*s*. 3*d*.; 386*s*. 5*s*. 4*d*.—Call received, 40*s*.; leaving balance against adventurers, 461*s*. 5*s*. 8*d*. A call of 1*s*. per share was made. It was resolved that the mine be divided into 4096 shares. Capt. Wm. Trepp reported that the north or Respyrn lode was very strong and regular in its course, and composed for the most part of quartz and copper ore of good quality. He was optimistic as to the future of the mine.

At Pembroke and East Grinnis Mining Company meeting (Mr. J. H. Wiggleson in the chair), the accounts showed a balance in favour of the adventurers 91*s*. 15*s*. 6*d*.; and in the estimated accounts of assets and liabilities a balance against the mine of 740*s*. 3*s*. 2*d*. A call of 1*s*. per share was made. The committee of management and auditors were re-elected, and the proceedings, which are reported in another column, terminated with a vote of thanks to the Chairman.

At Great Hewas Mine meeting, on Tuesday (Mr. R. C. Hanan in the chair), the accounts showed a balance at bank of 25*s*. 17*s*. 3*d*.; and in the estimated account of assets and liabilities a balance against the mine of 740*s*. 3*s*. 2*d*. A call of 1*s*. per share was made. The proceedings, which are fully reported in another column, terminated with a vote of thanks to the Chairman and committee.

At East Grinnis Lake and South Bedford Mines meeting, March 4 (Mr.

W. A. Thomas in the chair), the accounts showed—Balance last audit, 1857. 16 61. ore sold, 4237. 6s. 3d.; calls received, 7034. 4s.=12911. 6s. 7d.—Mine cost, merchants' bills, and sundries, four months ending Jan., 10517. 5s. 11d.: leaving balance in favor of mine, 2377. 0s. 8d. The estimated balance of payments over receipts for the next three months was 5068. 3s. 11d. A call of 1s. per share was made. Captain J. Phillips reported that the improvement in the logs at Red Whin shaft (specimens

Philippe reported that the improvements in the 1938-39 season at Jura were being followed up with the highly encouraging and promising character of the south lode have greatly added to the prospects of the mine, and induces increased confidence in the ultimate success of the adventure.

At East Frongoch mine meeting, yesterday (Col. Croft in the chair), it was resolved to complete the purchase, made by Mr. Downing on behalf of the company, of the mine and materials of the late company for 160l. Mr. Vaughan Francis, as solicitor of the company, was requested to complete the lease to the company.

the signatures to the articles of association, which were adopted. The following appointments were made:—Directors, Col. Croft (Chairman), Mr. Boyle (*vice-Chairman*), and Messrs. Halford and Rowlands; bankers, Bank of London; secretary, Mr.

W. Thomson; and captain, Mr. T. Pascoe (at a salary of 5*l.* 5*s.* per month). A dividend of 2*s.* 6*d.* per share was made.

Balance last audit, 1973/4. 9s. 6d.; tutwork, Dec., 826/3. 7s. 11d.; Jan., 776/3. 10s. 11d.; tribute balances, 442/3. 7s. 7d.; merchants' bills, 878/3. 13s. 11d.; water rent, 29/3. 10s. 11d.; dues, 147/3. 4s.; interest and commission, 215/3. 14s. 7d. = 5284/3. 15s. 6d.—Ore sold 3047/3. 2s. 4d.; rolls completed 720/3.; leaving balance against mine, 1637/3. 7s. 9d.

The College Mines have forwarded 5 tons 15 cwt. 3 qrs. of lead this week to the Mining Company of Ireland, Dublin.

The Mariquita and New Granada Company have advices for Dec. 20 received on Monday—MARQUITA: Cost, \$10,603; return, \$10,749.—PERUJA: Cost \$13,420; return, \$12,235.—SANTA ANA: Return, \$19,319. No profit and loss accounts received.

The Altan Mining Association have advices to Feb. 10. —
KATIAN.—Owing to a change in the strata, the lode in the slope in the 20 is more concentrated than before; it, however, still turns out good saving work, and we well expect it will soon recover its former size and productiveness again. The prospect continues much the same in the slope in the 10, where the lode yields from 3 to 4 tons of ore per fan. In the nearest workings the slopes are turning out about the same

There is no change in any of the levels calling for remark. Favourable progress being made in driving, &c.

OLD MINE.—In Bergmeister's, the lode is about 10 feet wide, composed entirely of quartz; it yields rather more ore than when last reported. In the slope south of No. 1 winze, the lode varies from 5 to 7 ft. in width, and yields about $3\frac{1}{2}$ tons of ore per fm. As the distance is not great (7 or 8 fms.) between this place and the workings of the No. 1 mine, it is not probable that the lode is a continuation of the latter.

in Bergmeister's, we deem it highly important to form a communication as early as possible, which will soon be necessary for ventilation; it will also greatly facilitate our operations, and very probably lead to the discovery of some valuable runs of ore.

ground. We are still driving westerly from the bottom of this working, where it
 lode continues to go almost horizontally; it is from 7 to 8 feet wide, and yields a
 moderate quality work, but the produce from this bargain still fluctuates. The lo

in No. 2 winze is about 4 ft. wide, and continues much of the same character as is reported. In the shallow level the lode is 3 to 4 ft. wide, very regular in its con-

UNITED MINES.—Our operations here are confined to tribute in and about the
on Woodfall's lode. The returns are still below what could be desired.

MICHELL'S.—We have driven southerly on the lode in the new adit about 500 ft., produced ore the greater part of the distance, but the quantity has been insufficient to pay. The level is now about under the surface workings, and as the distance between

is only a fathom or two, we purpose breaking this before removing the men. The ground in the level under the lobby is easier.

Mines.	Ore.	Per cent.	Copper.
30	50	5	3.50

Old Mine	64	4 1/2	0.18
United Mines	3	0	0.10

Michell's	8	0-65
Thomas's	6	0-66

Total..... 126

The Queenangen Mining Association have advices to Feb. 6:—Estimated

produce for Jan.:—Lode E: Prilla, 6 tons, at 20 per cent. = 1.20 tons copper; dredge, 27 tons, at 9 per cent. = 2.43 tons copper.—North Lode E: In the 20, driven west by four men, the ground has so far improved that we are now able to cut about

2 fms. monthly, at about \$34 per fm.; the lode has been somewhat more regular in the last report, with small stones of ore. In the 10, driving west by four men, \$38 per fm.; the vein is not quite so large, though equally as rich as in the beginning.

of the month, the produce being still about one-third ton of copper per fathom. The winch in the 10 has now reached its depth, being now as deep as the 20, which is being

sinking, and promises to give remunerative returns for a long time, as well in great depth as east and west from the mine. The slope west from the mine, roof of the

THE PROGRESS OF MINING IN 1857.

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N.B. Looking at the causes for the present depression in mining shares, Messrs. WATSON and CUELL have made a selection of a few dividend and progressive mines to pay good interest, with a probability, also, of a rise in value, the names and particulars of which will be furnished on application.

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Reliable information and advice will at any time be given on application. Also, COPIES OF "BRITISH MINES CONSIDERED AS AN INVESTMENT," by J. H. MURCHISON, Esq., F.G.S., F.S.S. Pp. 356, boards, price 3s. 6d., by post 4s. See advertisement in another column.

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So much is there of really useful and valuable information in this little work, that we can safely recommend it to every one who wishes to know his position as a shareholder.—*News of the World*.

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Notices to Correspondents.

* Much inconvenience having arisen, in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly filed on receipt: it then forms an accumulating useful work of reference.

TICKETING PAPERS FROM CORNWALL.—We have frequently to complain of inaccuracies, and suggested that the one for the week after should always contain notice of the errors. In that of the 4th inst. Sims, Williams, and Co. are represented as having purchased 405½ tons instead of 402½. West Wheel Seton as having sold ore amounting to 2091½, when it was only 1891½: this we corrected in our Journal.

The sampling for sale on the 11th inst.—3825 tons—shows only 3794, the omission being St. Aubyn and Grylle for 31 tons. These errors give a great deal of unnecessary trouble, and frequently too late on Saturday mornings to detect and remedy.

ACADIAN IRON COMPANY.—"M.D." (Belgium).—The next annual meeting will be held early in April; it will be duly advertised in the Journal, and a full report of the proceedings given. In consequence of the great extension of the works, it is not expected that a dividend will be declared. Mr. Roebuck, M.P., is the Chairman.

LADY BERTHA.—"C.B." (Exeter).—The committee and shareholders have always had the greatest confidence in Capt. Metcalf's abilities, and the only difference between them has been in the time that Captain Metcalf devoted to the duties. Hence the advertisement for an agent. It is now, however, arranged that he shall not undertake the management of any other mine, which seems to have given every satisfaction. The next sampling will be about 100 tons.

AUSTRALIAN FREEHOLD GOLD MINE COMPANY.—"An Unfortunate Holder."—The affairs are still in Chancery, and likely to continue there, as a host of solicitors are engaged for different parties.

OLA MINE.—In these days, when financial clearness and exactitude are indispensable in mine management—when public confidence and support are only to be won by unequivocal rectitude, it is not too much to require some explanation of the anomaly evident in the accounts of the Ola Mine, as passed by the last meeting. There is very great and unjustifiable obscurity in the item of 1954. 16s. 4d. balance of liabilities over assets. Are we really to understand, after an expenditure of nearly 6000l., that the company's assets were not sufficient to meet its liabilities by the above sum?

As the organs of certain shareholders interested, not only in this mine, but in several others in the United Kingdom, seek, through the medium of your valuable Journal, an explanation on the important point referred to; and permit me also to suggest to public companies a more business-like investigation of mining accounts than has generally been adopted hitherto.—*REVEREND*.

CURRY UNITED MINES.—"E.H." (Islington).—The company is wound-up, and a dividend of 3s. 3d. per share now in course of payment. Many of these shares were recently bought up at merely nominal prices.

MR. HENT, AND STEAM BOILER EXPLOSIONS.—The following is copied from a newspaper published Nov. 12, 1857:—"THE STEAM-ENGINE.—As a lover of improvement, permit me, through your columns, to ask those connected with the steam-engine if anything like the following is now in use, with their opinion? A separate condensation to feed the boilers, by connecting the feed plunger to a small condenser in the exhausting pipe, receiving sufficient injection to supply the boilers, consequently with water of greater temperature than from the air pump; when water is foul, on this plan it may be filtered to supply the boilers only." "Also, in large engines with more than one boiler a separate engine of sufficient power to feed the boilers, the advantages of filling a boiler with hot water in a short time after cleansing, boilers becoming leaky without immediate opportunity to repair," &c.—*DIREKT*.

GREAT WHEAL BUST.—The communication from Mr. William James has been received, but its further notice is necessarily deferred.

LIGHTING QUARRIES WITH GAS.—I observe in your Journal of last week some remarks on lighting mines with gas. I have lately erected a gas apparatus for lighting all the underground workings in my slate quarries, near Festiniog, and shall have much pleasure in affording any information on the subject, or to give any one visiting the locality an opportunity of judging as to the success of my plan.—*S.*

HOLLAND: Plas-gr-Ponhry, near Port Madoc.—[We shall be glad to receive a description of the apparatus, with particulars of its application and action, for insertion in the Journal.]

REDUCTION OF COPPER ORES.—In the Journal of Jan. 16, under the signature of "Q." and in that of Feb. 27, signed "M.B.," attention is directed to the treatment of poor copper ores. Being interested in the matter, I should feel glad to get into communication with either party. A letter addressed "A.R.," 30, Ashburnham Grove, Greenwich, will reach.

METAL MAKING.—Some time since several French accounts said that out of the water of the ocean at St. Malo they extracted silver and copper. Here is a wide field open for enterprise. Why should not Mr. Godefroy and Mr. Reid, such practitioners in the way of producing cheap silver and copper, apply themselves to this vast source of illimitable wealth? The Duke of Leeds would willingly grant them, at a cheap rental, one of the uninhabited Scilly Islands, on which they could erect their works. The salt obtained from the sea water would enable them to pay all costs, while the copper and silver would be all profit. It must be borne in mind that these works would never want a supply, as at the Scilly Islands there is no deficiency of water; in fact, the company undertaking this would have the whole of the mineral wealth of the Atlantic at their command. It has not been said that gold has been discovered in the Atlantic; a bottle, however, of the water could be sent to the Cheeside side of the Mersey to be tried, and from this great results might be anticipated.—*J.H.: Cheshire*.

TAPPING'S EXPOSITION OF THE JOINT-STOCK COMPANY'S ACTS.

"Gwernar."—The effect, and a most important one it is, of converting shares into stock is that thereby the cost of management is considerably reduced: thus, if the shares are of 1s. each, 100 of them will be converted into 100l. stock, so that the share register department of the company will have to deal with one item of stock instead of 100 shares. Another effect is, that when the shares are converted into stock the market is not so easily rigged and played with, because every transaction must be with large amounts of stock, instead of low-priced shares. Another effect is, that on the returns to the registrar, the statement of capital, when converted into stock, will be in a smaller compass than if a number of shares were returned. There are other advantages resulting in the reduction of the office, stationery, and printing expenses. To secure these advantages the company must be registered under the Joint-stock Company's Act, to obtain which the second chapter of Tapping's *Exposition* must be followed. The expense is as nothing, compared with the immense advantages and peace of mind conferred by limited liability.

REP. LEAD.—The best work to be obtained is Dr. Ure's "Dictionary of Mines and Manufactures." We are not aware that there is any special treatise published on the subject.

"G. G. T."—There are no definite rules previous to a mine being admitted. An application should be made to the committee, who will investigate the circumstances, and from them form their decision. In scrip companies the rule is that two-thirds of the capital should be subscribed. We never recommend investments in any particular mine. Information can be obtained of any respectable broker, several of whose names appear in our advertising columns.

ANGLO-CALIFORNIA GOLD MINING COMPANY.—I am surprised that neither the Chairman or Mr. Goodman, the Liquidator, have condescended to let the shareholders know in what position they are placed. Previous to paying my contribution, I wish to see an account from Sir Henry Huntley of his disbursements in California. So soon as that is added many of us will be willing to pay our quota.—*P. F.*

AUSTRIAN MINING COMPANY.—The *Mining Journal* announces, and the *Times* echoes, the fact that in the month of May the final liquidation of this unfortunate company will take place; at the same time, we are cautioned not to believe this, on account of the many delays that have hitherto taken place. In plain English, we are, then, to understand that the two Scotchmen and one Frenchman, who are entrusted with the liquidation, are to be outwitted, and beaten out of the field, by the semi-Hispano-Italian, Senor Don Juan de Grimaldi. Many of us are of opinion that delays are no longer necessary; the only course to be pursued is to have recourse to litigation, in order that some justice may be rendered without further preface to the suffering shareholders. Where is now the promoter, the undertaker, the trustee? He had his fees on all occasions, but now deserts the ship in which he did not embark, but made his fortune.—*S. P.*

LIBERTY GOLD MINING COMPANY.—"P." (City).—The call for new capital has not been freely responded to, and it is expected the directors will be compelled to wind-up, which, if necessary, they will endeavour to do without having recourse to law proceedings.

GREAT CRIMMIS MINE.—"G. J. B." (Birmingham).—The mine is at the present time being vigorously worked, and as the majority of the shares in the new company are taken up by the old adventurers, they will reap the benefit of the alteration. The lord having taken such a great interest in the undertaking, and having met all parties in the most liberal spirit, is the cause of the great confidence in the ultimate result.

MINE SHARES.—"D." (Chatsworth).—We cannot interfere in the course pursued by other Journals.

PRACTICAL MINING—ORE DRESSING.—Since last writing to you, I have fortunately been able to obtain from London a copy of Aiken's *Dictionary of Chemistry and Mineralogy*, bearing date on the title page 1807, but within are references to papers published in 1812. I have carefully read through the articles "Tungsten" and "Tin," but I am quite at a loss to know what "Nougatite" is, a process nearly identical with mine. I cannot either in these articles or elsewhere find any such description as he refers to. If he will oblige me with the extract to which he refers, I shall then, but not until then, be in a position to answer the accusation of plagiarism. Of course, as my object is not mere personal defence, but to elicit the truth of the matter, I can have no objection to his statement of the name of the greater authority than himself to whom he refers in your Journal of last week. With my reply to his statement, I will give the promised sketch of the history of the process.—*ROBERT OXLAND: Plymouth*.

GREAT WHEAL VOR UNITED MINES.—"A Subscriber" (Exeter).—The reason the usual report was not inserted in the Journal of March 6 was simply because none was received in London. The omission is supposed to have arisen through the new agents having only entered upon their duties a few days.

LADY BERTHA.—The cause of the sales of ore not having been regularly kept up, is that the committee thought it desirable to sink the shaft, drive deeper levels, and rise and sink winzes (see the reports), so that the ore can be advantageously taken away. This is now being done. Regular sampling will follow. Further calls it is expected will not be wanted.

SUBSCRIBERS IN AMERICA.—Our friends in America are informed that they can obtain the *Mining Journal* by ordering it from a bookseller in any of the principal towns in the United States. Mr. Trübner, of Paternoster-row, is the London agent, and sends parcels by every mail to the principal booksellers and news agents there.

* The *MINING JOURNAL* can be procured at our office by Eleven o'clock on Saturday morning. Newsmen, therefore, can make the necessary arrangements to have the Journal at the several stations in time to forward by the mid-day trains, enabling many of our subscribers to receive their copies on the day of publication.

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, MARCH 13, 1858.

A letter, in the form of a pamphlet, has been addressed to the shareholders of the GREAT WHEAL VOR UNITED MINES, by their late manager, Mr. H. P. P. CREASE.

It is a temperate publication, and must tend materially to remove the personal animus which has been created in the minds of the majority of the proprietors against that gentleman. Indeed, it is only in a personal point of view that we can allude to the document, inasmuch as all details in connection with the origin and progress of the company we have fully anticipated, by the various abstracts and documents which we recently furnished, together with a clear and succinct analysis of every transaction from the commencement to the present date, which, moreover, so contravened the allegations of the committee of investigation, that we do not hesitate to express our astonishment that nothing has been done by some, or all, of those gentlemen to vindicate the position they assumed, and to invalidate, if practicable, the documents put before the public in our columns, and which give such a different complexion to every proceeding of the committee of management and of the late manager, Mr. CREASE, to that put forth in the report of the committee of investigation.

The silence of these latter gentlemen is self-condemnatory, and is the best possible proof that their statement was drawn up and put forth hastily, without that due consideration of documents and facts which was their undoubted duty, before making grave accusations against individual conduct and collective management.

Mr. CREASE says, "My accusers are looking backwards, prophesying after the event, and judging from results, whilst my brother and myself had to look forward, to decide on questions of extraordinary difficulty, requiring immediate decision; and it by no means follows, because the event has proved that money might have been better expended in particular points, that I or any one else could have come to that opinion at the time it was absolutely necessary to decide." In this there is great force. It is easy to find fault, but difficult to determine coming events.

Those who are lavish in the one case are very parsimonious in the other, and eagerly throw responsibility off their own shoulders. We believe it was so with Mr. CREASE. While it was up-hill work with the Great Wheal Vor he was allowed to do as he thought proper, and it would appear he did so to the best of his ability; but now that order has been brought out of chaos at these extensive mines, there is no lack of persons willing and ready to decry the past.

It would be important for the mining interests generally if the question of the Great Wheal Vor and its late manager was placed in the hands of competent, but disinterested, persons to report thereon—persons not in any way identified with the shareholders, or the suppliers of materials to the mine. The committee of investigation should recommend this course; and it is the more necessary to be done, as Mr. CREASE does not hesitate to express his conviction that the ground and front of his offending was the pertinacity with which he resisted the intrigues of suppliers; while, with equal openness, he asserts that the object of the present movement against himself is to render the Great Wheal Vor a suppliers' mine.

"The secret of the whole persecution to which I have fallen a sacrifice," says Mr. CREASE, "is contained in two words—supplies and power. With the control over them, on behalf of the adventurers, I have from the commencement steadily and pertinaciously refused to part. Messrs. HARVEY and Co., through their chief, or acting partner, Mr. RAWLINGS, have from the very first sought the entire monopoly of supplies. They always wanted to put an agent or two into the mines, which I would never allow."

Mr. CREASE necessarily goes into much detail as to the personal services of himself and brother, and concludes by declaring that "had I merely consulted my pecuniary interests, I might have been already rich. But I preferred honest poverty to wealth gained by the iniquitous means familiar to some of my destroyers. Your interests were my exclusive object; to them all my energies have been applied; for them I have

daily risked my life, encountering difficulties that I believe are unparalleled in the annals of mining. I have brought you to the verge of success, and my reward is defamation, persecution, and ruin."

From our Cornish correspondent's observations, in last week's *Journal*, it is evident that the letters we have from time to time felt it our duty to publish on the subject of samplers' fees and ticketing dinners are attracting considerable attention amongst those whom the subject most concerns—mine proprietors, wherever resident. We confess until we were furnished with proof we had no idea of the extent to which the evil was carried. We beg the samplers to distinctly understand that we do not find fault with them; they have clearly a right to do the best they can. Personally we know they are an intelligent, respectable class of men; no doubt brought up in expectation of the emoluments they receive, and they, therefore, perhaps look on them in some measure as vested rights. It is not with these gentlemen we believe our correspondents wage war; it is with the principles involved, which are certainly not those of sound, well-conducted, business habits; we believe these gentlemen themselves will admit that, and, therefore, that a reform is desirable.

We know from the number of letters we receive on the subject, and from the respectability of the writers, that a strong feeling on the matter is abroad, which only requires unity of action to ensure some modification being made. We think that suggested by our Cornish correspondent would meet the case, and satisfy the samplers. There can be no defence or palliation made for such conduct as our correspondent (who evidently knows the subject, when he furnishes a copy of the bill and the persons present) describes—the agents enjoying the banquet, and being paid the sums in lieu of doing so. If this be not lavish expenditure in mining, we confess we do not know what can be so designated. This we do know—it militates seriously against Cornish mining adventure; we, therefore, as advocates of that branch of British enterprise, do no more than our duty in endeavouring to eradicate every evil we find hostile to its well-being. In doing this we again assure the samplers that we are actuated by no personal motives, as we really believe we shall in the end be serving them, to the great relief of the struggling young mines, that, as one of our correspondents observes, have quite enough to do to pay their way.

It behoves miners and mine proprietors to see to their own interests. A spirit has been awakened that they should not let drop, but by a vigorous and active endeavour abolish imposition, and under which Cornish mining should not labour. The evils are not supposititious or fictitious; they are patent and evident, therefore let them be for ever abolished. We know of a cargo of copper ore being this week kept out of the market—that is, out of the sampling list—solely to avoid these charges; this cargo will, therefore, be so much ore withdrawn out of the apparent produce of the Devon and Cornwall mines. This is not as it should be. The miner has long been hampered with antiquated customs and expensive trammels. All he seeks is "a fair field and no favour;" in Heaven's name let him have it.

The economical recovery, or utilisation as it is the fashion to call it, of the enormous mass of sulphur which is disengaged in the roasting of ores, smelting and refining of metals generally, and in combustion of coal, is a problem which has long attracted the attention of men of science. The patent rolls teem with descriptions of inventions having this object in view. Electricity has been sent through masses of molten metal to evolve the sulphur contained therein, which is always an element of deterioration. The same means were employed in the production of CHEVRE'S patent coke—the purest and densest that was ever seen, and the quantity of sulphur set free was surprising. But no one up to the present time has succeeded in turning the sulphur fumes to useful account. We say up to the present time, for now we have been favoured with the description of an invention that appears to offer an easy solution of the problem, and which has received the unanimous approbation of the most eminent scientific authorities in France.

This invention, which is the property of Messrs. OESCHGER, MESSDACH, and Co., the well known metal merchants, of Paris, and of which M. DUMONT, civil engineer, is the author, consists in the manufacture of sulphate of soda by the following means. Instead of employing sulphuric acid to decompose chloride of sodium, this substance—common salt—is exposed to the action of a current of sulphurous acid evolved from the combustion of sulphur contained in iron pyrites, and the sulphuretted ores of zinc, copper, lead, &c. The sulphurous acid decomposes the water of hydration of the salt, or that which may be added to it, during the operation, either as a liquid or in the state of steam. The hydrogen, uniting with the chlorine, forms hydrochloric acid, and the oxygen set free, as well as that which is derived from the atmosphere, changes the sulphurous acid into sulphuric acid, and the sodium into an oxide of this substance. These two bodies, by their mutual reaction, form sulphate of soda. At the same time there are formed sulphite and hyposulphite of soda, which may be converted into carbonate of soda in the ordinary manner. The mode of manufacture is stated to be excessively simple, but we shall defer the description to a future occasion, when we shall be able to examine the commercial and sanitary value of the invention.

Our private correspondence from such of the different Australian colonies as were cognizant of the monetary crisis in England, do not present commercial matters as being in a satisfactory position, and much apprehension was generally felt. Both the October and November mails from this country having been delivered concurrently in the colonies, the disastrous news conveyed was unexpected, and our letters mention that the merchants and others were taken so much by surprise as respects the commercial failures and difficulties at home, that the present intelligence from Australia cannot be regarded as representing the full effect which must be produced amongst the colonists, more especially as there were only a few hours at Sydney, and a few days at Melbourne, between the arrival of the *Simla* with the gloomy advices from England and the departure of the *Columbian* with the homeward mail of January, now to hand via Marseilles—in fact, it is only from the ports and immediate vicinity that there are return advices to the October and November mails. From the interior we have, therefore, yet to learn even the primary effect of our momentous monetary crisis; but as the commercial interests of the different colonies are so interwoven with those of the mother country, the shock must be felt throughout the length and breadth of the several dependencies, more especially as the outward mails arrived at a most inopportune moment, the state of the money market, from local causes, having previously occasioned much difficulty in trading communities.

The public attention of the colonists in Victoria had been diverted from railway and commercial matters, up to the arrival of the home news, by the agitation in the political arena in reference to important reform measures about to be brought before the Legislature, and as to the practical operation of the "manhood suffrage clause" in the electoral bill passed last session. A different theme had, however, been furnished by the outward letters, and politics would, comparatively, be thrown aside by the all-absorbing consideration as to how the storm in the money and commercial world would be met. The Government, it was thought, would be thrown into a very serious position in respect to finance; and all idea of proceeding with the scheme for the construction of railways at enormous cost, and on Government account, would, no doubt, be postponed. The Treasurer was to propose a vote of 90,000l. for interest on 1,500,000l., to be raised during the present year, but the issue of the application to the Legislature was very doubtful. The Government, in fact, was not satisfied with the engineers' computation; and it was admitted by their representative in the Council that their reason for advertising for tenders to construct the lines before they raised the money was "in order to obtain information;" so that there is every reason to believe that the practical features of the railway question will return to their old position, and the money project of the Executive be altogether abandoned.

The Geelong and Melbourne Railway had got into working order, and, consequently, was rising rapidly into favour with the public. The Hobson's Bay and St. Kilda Railways continued to prosper; and during the Christmas holidays the traffic offered was greater than the accommodation, and more engines and carriages were in course of construction, to provide against a similar emergency. The returns of the Melbourne and Hobson's Bay Railway, for the week ending Jan. 7, 1858, amounted to 2591l., or 172s. per mile per week.

From Adelaide, our advices reach to the departure of the mail on Jan. 11th, at which date the London mails of Oct. and Nov. had not been delivered, as the *Simla*, which carried them, did not arrive at Melbourne in due course. Thus, for the fourth consecutive time, this colony has lost a post, so that our merchants and the public generally here, who are so largely interested therein, are again seriously inconvenienced by not re-

ceiving replies to their communications of Oct. and Nov. last, and the Adelaide merchants will now have three mails to answer at once; all this irregularity and injury to commerce, arising from the present imperfect postal arrangements for this colony, the mail bags being still carried past their own port.

The general state of trade and commerce in the colony is reported sound; the financial position most satisfactory; and public credit never on a firmer basis. As evidence of this, one of the Adelaide banks has offered the Government 2 per cent. premium on 15,000*l.* worth of bonds for transmission to England, which the Government had declined. The staple exports of the colony for 1857 were greatly in excess of any previous year. The agricultural, mineral, and pastoral products were most abundant. Upwards of 50 distinct copper and lead mines had been opened up; and 30 new applications for mineral leases in the northern districts had been made to the Government, copper of the richest description being said to exist there in almost fabulous quantities.

In the Legislative Council of South Australia a resolution was passed that "Railways in this province shall be constructed, maintained, and worked by companies and others using their own capital for the purpose; and this council will encourage and support such undertakings by agreeing to a guarantee of interest on foreign capital so employed, to an extent not exceeding 6 per cent. per annum, whenever the profits derivable from traffic shall fall short of that amount." For general details upon the mining interests of Australia, we refer to another column.

In our last Journal, referring to the connection of the Royal British Bank with the Welsh Works, we had occasion to remark on the frequency with which persons passing through the Insolvent or Bankruptcy Courts are apt to attribute their losses to mining, even when they have only been in the slightest degree concerned with it. A stock and share broker, named HENRY BEARDSHAW, was examined on Friday last; the only assets he had were—10 shares in the Lake Buffalo and Huron Railway Company, 500 Nouveau Monde; 50 London and Californian Gold Quartz Crushing Company, 100 Fort Bowens, 150 Australian Consols, 50 San Fernandos, 50 Yuba River, 200 New Linares, 50 Colonial Company, 100 Clarendon, 50 Carson's Creek, 50 Glenaulin, 1 East Wheel Rose, and 50 Cabert United—the whole of these were bought for 1630*l.*, and the present value was 15*l.* Any person acquainted at all with legitimate mining will perceive that, with the exception of the one share in East Wheel Rose, all the other undertakings, though some had the aspect of success, could only be considered as purely speculative; while the least exercise of judgment ought to have told parties investing how recklessly some of these undertakings were brought out, and carried on.

It is a matter of surprise that when this statement was made the commission and solicitors were not acquainted with the fact that many of these undertakings were long since defunct, or never had any existence except on the prospectus which were issued to obtain contributions from the deluded, credulous, and unwary public. We will instance a few of these concoctions. The London and Californian Gold Quartz Crushing Company has had no offices since 1853, and at that time they professed to be working in California; the persons in a gateway in Leadenhall-street, never could give any information, nor were over any responsible people to be met with. The Yuba River was scarcely ever heard of. The mode in which the Australian Cordillera was got up, and the manner in which it was managed, is patent to all. The Carson's Creek issued a flaming report, but were honest enough to return one-half of the amount subscribed to the proprietors; the residue, after expenses were paid, was invested with the late notorious JOHN SADLER, and consequently, produced nil; while the Australian Consols held a few meetings, but with no results. These concoctions have expired some years since, and the scrip for a long period has only been worth the paper on which it is printed. Some of the other shares, such as the Nouveau Monde, may yet, probably, realise something; and hopes have been held out that Fort Bowen may, possibly, at some distant period, make returns.

Looking dispassionately over the list above enumerated, will any one with the slightest knowledge of the subject say, that if all the shares have been bona fide purchased the money has been invested in legitimate mining? We have clearly shown that nearly all these concerns were not adventures, but speculations in the most extended use of the term, and such as every practical prospector of mineral enterprise would unhesitatingly reject.

It is too often the practice to ascribe mercantile mischances to mining. It is a most convenient expression, and from time immemorial that profession has been made the scapegoat of many commercial delinquencies. The public ought to know the difference between those schemes concocted by sanguine individuals in some cases, in others by visionary projectors, assisted by designing knaves, the only object of which is, under the attractive form of mining for some metal, to extract money from their pockets, in order to enrich themselves, without the least idea of carrying out an undertaking, or rendering a *quid pro quo* in any shape or form. Unfortunately, although the majority of these ephemeral and delusive schemes have perished from inanition, there yet remain a few calling themselves mining companies, which were fostered in delusion, nurtured in fraud, and now exist solely on the credulity of their too confident victims. Such abortions as these are a disgrace to mining, and have been productive of great detriment to mineral industry.

We have never yet seen a failure or a reverse caused by legitimate mining, and we do protest against Californian, Australian, and other foreign schemes, being classed under the head of "mining," when they should have another generic term, which we leave our readers to supply.

CONSUMPTION OF COALS, AND RATE OF EVAPORATION FROM ENGINE BOILERS.

Mr. Graham read a paper at the Manchester Philosophical Society, in which he described the results of experiments which he had made with a series of small vessels of equal size, the fire being under the first, and the flame bed alone passing under the others. The evaporative power of the first was found to be equal to 100, the second to 27, the third to 13, and the fourth to 8. A second set of experiments with larger vessels, in the shape of boilers, corroborate these results. The third series of experiments were made with the view of determining the value of a supplementary boiler as heating surface, placed under the most favourable circumstances; the result showed an advantage of 15 per cent.

Mr. Graham then detailed the results of a numerous set of experiments on evaporation, on the large scale, with reference to engine boilers. These experiments have extended over a period of several years, observations being made daily, and the results deduced from several hundred recorded observations.

Before beginning to register his results, the boilers were in each case reset, and, by careful and continuous experiments, were put into what was found to be their best condition for giving the best working result, as regards the admission of air, the draught of the chimney, the size of the fire-place, the distance of the bars from the boiler, the thickness of the fire-bars, and of the fire itself, the form of the flame bed, flues, and bridges. Mr. Graham stated that in the case of one boiler the alterations had been repeated at least 30 times for this purpose. The experiments with the boilers were of 12 hours duration each, and number from 30 to 40 for each boiler. A perfect command was maintained of the draught, which varied from 0.5 to 0.7 in. pressure of water, and the temperature of the draught at the bottom of the chimney was generally sufficient to melt lead (612° F.), but never zinc (773° F.). The conclusions which Mr. Graham arrived at by means of these experiments were the following:—

1. That the boiler usually called the "Butterley, or Fishmouth boiler," 25 feet long and 7 feet diameter, will, under favourable, but what may be called ordinary circumstances, give with the Worley coal, for each pound of coal burnt, 8.29 lbs. of steam; or, not including the heating of the feed water from 60° to 212° F., 9.67 lbs.
2. The boiler usually known as James Watt's "wagon-shaped boiler," 25 ft. 6 in. long, and 6 ft. 6 in. diameter, will, under similar circumstances, give 8.50 lbs. of steam; or, not including the heating of the feed water from 60° F. to 212° F., 10.26 lbs. of steam for each pound of coal burnt.
3. The plain cylindrical boiler, with fire-place underneath, 42 ft. long and 6 ft. diameter, will, under similar circumstances, give 6.20 lbs. of steam; or, not including the heating of the feed water from 60° F. to 212° F., 7.23 lbs. of steam for each pound of coal burnt.
4. The boiler with two internal fire-places joined into one internal flue, known in the neighbourhood of Manchester as the "breeches boiler," 23 feet long and 8 feet diameter, will, under similar circumstances, give 6.90 lbs. of steam; or, not including the heating of the feed water from 60° F. to 212° F., 6.88 lbs. of steam for each pound of coal burnt.

5. That a supplementary boiler, under very favourable circumstances, gives a saving of 15 per cent.

6. That flues round a boiler, when cleaned out, and the sides of the boiler scraped once a week, will give a saving of about 2 per cent.

7. That a difference in the setting alone of the same boiler may produce a difference in the result amounting to 21 per cent.

8. That the difference between a good shaped boiler, properly set, and a bad shaped boiler, improperly set, but both clean and in good order, may amount to as much as 42 per cent.

9. That a difference in firing only will produce a difference in the result of 13 per cent.

10. That the smallest loss by smoke burning, or by the admission of cold air, either over the furnace door or in front of the bridge, or at the back of the bridge, has been 1.7 per cent.

11. That the loss arising from a scale of sulphate of lime, of not more than one-sixteenth of an inch, amounted to 14.7 per cent.

12. That neither wet coal, nor coal which had been out of the pit three years, nor wet weather, nor a variation of temperature in the atmosphere from 40° F. to 70° F., produced any appreciable difference of result.

13. That windy weather invariably gave a good result.

14. That a comparatively thick and hot fire, with a good draught, uniformly gave the best results.

15. That the difference in the results obtained with different coals, all from the immediate neighbourhood, amounted to a loss of 11 per cent.

16. That the same coals, reported to be from the same pits, will vary in their results to the extent of 6 per cent.

17. That when a boiler is worked solely for the purpose of heating, by means of its steam, dye vessels, soap cisterns, &c., if its available power, with the steam at a pressure of 2½ lbs., be taken as equal to 100, then at 7 lbs. pressure its available power will be 120, and at 10 lbs. pressure it will be 130; the same quantity of coal being consumed in each case. This surprising result, at present unaccounted for, may be thus stated:—That the same weight of coal consumed in the same number of hours will work ten cisterns at 2½ lbs. pressure, twelve cisterns at 7 lbs. pressure, and 13 cisterns at 10 lbs. pressure.

18. That while we may reasonably look for improvements in the construction of the fire-place, in the form of boiler, in the addition of separate supplementary heating surface, and in cleanliness, and may thereby effect a great saving in the consumption of coal, we cannot, at the same time, expect much saving from extension of flue space, when coated with soot, or from greater length of boiler than four times the length of the fire-place.

Mr. Graham stated in addition, that in consequence of the uniform low results obtained by evaporation from boilers and flues open to the atmosphere, which according to his experience never rise higher than from 5.5 to 6.0 lbs. of steam for each pound of coal burnt, also from the increased results obtained with increase of pressure, and apparently due to that condition, he is disposed to suggest that the rate of evaporation of water per pound of coal increases with, and bears some ratio to, increase of pressure.

With regard to the deposition of sulphate and carbonate of lime and mud in boilers, Mr. Graham stated that he had experimented, with more or less success, with caustic soda, quick lime, muriatic acid, soap liquor, sawdust, spent madder, and logwood chips. Two facts in particular were noticed as regards the tendency of hard water to "scale"—1. That the sulphate of lime separates from the water when in contact with the bottom of the boiler, or with other substances, such as sawdust or other materials floating in the water; but that no precipitation takes place until the water has been concentrated, by continued evaporation, down to the state of a saturated solution, or to that point which may be termed the "salting point."—2. That carbonate of lime and mud are principally liberated in the body of the water, and have but little disposition to adhere to the boiler, unless cemented by the sulphate of lime.

Practically, therefore, it has been found that no scale of any consequence will be produced on engine boilers, even with such hard water and hard firing as Mr. Graham has been accustomed to, if 100 gallons of the concentrated liquor of the boiler, equal to 4 per cent. of the amount of feed water used daily, and 300 gallons, or 12 per cent., be run away on Saturday through the usual mud machine, and if the boiler be run empty every sixth Saturday and brushed out. The water used was so hard as to require from 35 to 40 measures of Clark's test liquid to soften it. There is little loss incurred by this mode of working, since the chief discharge may take place at the close of each day's work; and there is an incredible advantage gained by the saving of coal, the reduced wear and tear of the boiler, and the greater safety of all persons concerned with it.

THE MINING AND INDUSTRIAL INTERESTS OF CORNWALL.

[FROM OUR CORRESPONDENT IN WEST CORNWALL.]

MARCH 11.—The copper standard, at the ticketing held at Pool last week (March 4), declined 3*l.* 14*s.*, compared with the previous week, but was still somewhat above the standard at the corresponding monthly sale. The decline of the standard was accounted for by the smelters on the following day announcing a reduction of 1*d.* per lb. on manufactured, and 9*d.* per ton on unmanufactured copper. Although it was known that the demand for copper had fallen off in the last fortnight, it was scarcely expected that the smelters would have reduced the price, but that they would have held on stocks for a few weeks, in the expectation that the cheapness of money would have stimulated trade, and have caused a better demand. Even now that the price of copper has been reduced, it is believed that the reduction is merely temporary, and that the price of cake copper will soon rise again to 126*l.* per ton. The fall in the standard, and in the price of copper, was in some degree hastened by the sale at Swansea, on March 2, having been rather a large one, and being of a better average produce than usual. The 1400 tons of ore sold on that occasion produced no less than 286 tons 5 cwt. of fine copper. With the present prices of manufactured and unmanufactured copper the standard will probably fall a little lower, unless the smelters intend in a week or two again to advance the price to consumers. The standard at present is a good one, and there does not seem to be any reason to apprehend a serious decline.

The tin mines have been making up in some measure for the losses they sustained when the price of tin was so low, in the last quarter of 1857. It is to be regretted, however, that the price at present is not very well sustained. A reduction has taken place in the price given by the smelters for black tin, and this probably will be followed by a reduction in block tin. The decline, there is no doubt, will be only temporary; but trade takes a long time to recover from the effects of such a commercial panic as we have passed through, and, therefore, it is not to be expected that tin will reach the high price it attained in the spring of last year for some time to come. The price in March, 1857, was 146*l.* per ton for block tin. The price of lead has been well maintained lately, and there is no reason why productive lead mines should not be doing well.

Business in mining shares has been rather dull during the past week. Wheal Bassets are quoted at 240*l.* and 245*l.* East Basset, 90*l.* and upwards. West Basset is improving, and shares are at 26*l.* with an improving tendency. It seems to be the prevailing opinion that the judge, at the Assizes next week at Bodmin, will order the dispute between this mine and South Frances to be submitted to referees, consisting of mining gentlemen, which would be a much more sensible course than submitting a number of mining details to a jury who do not understand them. West Frances shares are about 20*l.*; the improvement in this mine, in the 85 west, consisted of small branches of rich ore, with strata which appears to promise well for the next level. At North Pool meeting a call of three guineas per share was made; there is an improvement in this mine in the bottom level east, and consequently shares have gone up, the lode having a much better appearance than heretofore. Wheal Harriet is looking better, after the expenditure of a great deal of money and perseverance by the adventurers, who deserve to be rewarded. Penstrulth has made a call of 12*s.* per share; the adventurers continue to be very sanguine as to the results. West Damsel is looking well, and shares have advanced to 120*l.* and 130*l.* At North Roskear a call of 1*l.* per share has been made. South Seton shares are at 18*l.*; some black and yellow ore and gossan have been found at the shaft, but the district has hitherto been found a deep one for ore; the lode promises well for a mine in depth. Alfred Consols is looking, on the whole, somewhat better; an improvement may be fairly expected in the 120, on the main lode. East Tolgus is "bunchy," but many persons expect a good mine at deeper levels. North Frances has a good mineralised lode in the 36 west; greater depth, however, appears to be wanted for this mine. The result of the deep adit cross-cut at South Carn Brea has somewhat disappointed expectations; the lode, however, is large and promising, and may turn out more ore as

levels are extended. South Tolgus continues to look well, especially in the 100 west, on Youren's lode. Wheal Margery is, on the whole, looking favourable, and with some more perseverance is likely to do well. West Rosewarne is more promising, especially for the next level in depth.

A lecture of a useful character was delivered lately at St. Agnes, by Mr. Rickard, of the Mining School, Truro. Its object was to teach young miners of the locality methods of discriminating minerals by simple tests. The more important physical characters by which alone many minerals may be distinguished were first described; and the lecturer next explained, and showed by experiments, the use of the blow-pipe, by the aid of which the flame of a candle may be made to yield the intense heat of a furnace, and that by this means, with a few simple fluxes, a great many minerals might be easily discovered, either by reducing them to metals, or by observing their other reactions with those fluxes. Mr. Rickard also explained the methods of detecting minerals by their solutions in acids, showing that the process of detecting minerals by their chemical characters is in many instances simple and easy of application, and recommending the young miners present to pay attention to this study. This is a class of lectures which, if mining schools were established in the different mining districts, might be often given to audiences principally composed of working miners. Courses of such lectures would add considerably to their knowledge, and create a desire for more minute and detailed information on these subjects, which would lead to good results. Mr. Rickard stated that miners emigrating to other parts of the world, if possessed of the necessary knowledge, and a small case containing a blow-pipe, with a few tests, would be enabled easily to detect the different minerals they may find. In fact, it is scarcely disputed that mining schools in the mining districts, calculated to impart instruction to the working miners when "out of core," would be very beneficial. The great difficulty, however, is to obtain the necessary funds for the establishment of such schools on an efficient basis.

The Cornwall Railway appears to be at length in a fair way for completion. Its progress has been retarded for many years by financial and engineering difficulties; but the present state of the money market has enabled the directors easily to raise 300,000*l.* on preference shares, which will be sufficient to complete the line from Plymouth to Truro, leaving the extension to Falmouth as an object to be carried out as soon as possible afterwards. The total amount expended to the end of the year was 1,164,842*l.* The stupendous iron bridge over the Tamar at Saltash, Mr. Brunel reports, will be completed by the end of the present year. The roadway of one of the spans is now about 54 ft. above the ordinary spring tides; the total height to which it is to be raised being 100 ft. The iron work of the second span is in course of construction. The superstructures of two or three viaducts remain to be finished. Contracts for the rails have been made, and the laying of the permanent way is about to be commenced. Mr. Michael Williams (the Chairman at the half-yearly meeting) said he had no doubt the line would be opened by June, 1859; but others believe it will be opened earlier. It will be a great boon to the county of Cornwall, with its important mineral interests, to be placed in railway communication with the rest of the kingdom. But it must be a subject of regret that the important shipping port of Falmouth will have to wait some time longer for the extension of the line to that place.

The West Cornwall Railway Meeting, held in Bristol, was a stormy affair. No dividend was forthcoming, and two or three of the shareholders strongly complained of the heavy working expenses of the line. The ore and the coal traffic yields very little profit; there are many stoppages on the line, and the passenger mileage is low on the average. The directors, however, hold out the prospect of a better state of things when the Cornwall line is opened, and communicates with the West Cornwall.

REPORT FROM NORTHUMBERLAND AND DURHAM.

MARCH 11.—There is nothing new or interesting to report respecting this district this week; no change to report in connection with the coal and other trades. Great anxiety was felt respecting the safety of the large fleet of screw colliers which left the Tyne and Wear last week, but happily they all reached the Thames in safety. But several wrecks have occurred on the coast, and in some cases the crews have also perished.

Last week some men were erecting an air crossing in the Shotton Colliery, belonging to the Haswell Coal Company, and a young man, a putter, stood some time looking at them, when unfortunately a stone fell on him, which caused his death before he could be removed from the pit.

The strike at the Witton Park Ironworks has terminated, the whole of the men having returned to their employment; the difference between the parties was only trifling. The strike has, of course, caused a great deal of destitution in the neighbourhood.

The Border Counties Railway is now completed to a certain point—to Chollerford, on the North Tyne, a distance of about eight miles from Hexham, and is expected to be opened for passengers, &c., in the course of the present month. This railway joins the Newcastle and Carlisle Railway at Hexham, and is intended to proceed northwards through the border counties. It is carried over the River Tyne by means of a fine iron bridge. It will open out a considerable coal field in the border counties, called the Plashette, and will also afford means of communication with the iron district in the neighbourhood of Bellingham, &c.

Blast furnaces have been lately put into operation at Halthwaite, and four are nearly completed at Jarrow, on the south bank of the Tyne. This place was only recently a quiet village, a few coal staiths, cinder works, &c., being the only business carried on; but the extensive works of those energetic and enterprising gentlemen, the Messrs. Palmer, have quite changed the aspect of the place. They have established extensive iron-ship building works, engine-works, and foundry; and now the blast furnaces alluded to, which it is to be hoped will ere long be in active operation and successful, as they will be the means of employing large numbers of men, and will materially benefit the place and neighbourhood.

Mr. John Lowery, of Oxclose Colliery, was presented with a handsome silver snuff-box and gold scarf-pin on Saturday. The box bore the following inscription:—"Presented to Mr. John Lowery, as a mark of respect, by the workmen of Oxclose Colliery, March 6, 1855."

REPORT FROM MONMOUTHSHIRE AND SOUTH WALES.

[FROM OUR CORRESPONDENT IN SOUTH WALES.]

MARCH 11.—The Iron and Coal trades have during the past week been still further unsettled throughout the district, partly owing to the effect on trade generally of political occurrences. The state of our relations with France excite some apprehensions, and there can be no doubt that a dissolution of the alliance, or even a prospect thereof, would exercise a very prejudicial influence for a time. Our present trade with the Continent is a valuable one, and anything which occurred to interfere with it would be deeply regretted. Of such a contingency, however, we trust there is no danger; and the elaborate explanation of the policy of the French Government, just published, may tend to reassure those who began to feel any uneasiness on the subject.

With regard to America, our position remains but very little improved. The once large demand from that country is reduced to feeble proportions; and although some of the principal works are employed for that market, the dulness of trade generally is severely felt. For bars there continues to be a moderate enquiry, and that for pig iron shows a somewhat greater degree of briskness. The winds have kept the docks almost empty this week, and this adds to the slackness. The tin trade remains in a very depressed condition, and the hands at the works are diminished in number and reduced in wages. The rate of pay has not altered in the coal districts since we stated—now several weeks ago—that the reduction amounted in some parts to 6*s.* and 7*s.* in 1*l.* The men have here and there made applications for an advance, but no hopes are held out to them of their demands being complied with.

The learned judge who came down to try prisoners at the Glamorganshire Assizes (Mr. Baron Bramwell) availed himself of his proximity to the colliery districts by descending a pit for the purpose of inspecting the arrangements. His lordship was conducted to the Mynddnewydd Colliery, near Swansea, accompanied by several gentlemen, and went underground attired in a miner's garb, walked through the principal roads, examined the air-ways, and picked up pieces of coal and slate as he went along, examining everything very minutely. It is stated that his lordship was very anxious to be shown some fire-damp, but there was none to be found, in consequence of the good ventilation. In order apparently to form a better idea of the severe nature of a collier's occupation, he next attempted to cut some coal, but he remarked that it was very hard, and relinquished his task. The learned judge was underground altogether about two hours, and, upon leaving the pit, he distributed a little money among the men, advising them to purchase books.

The work of education in the hills is advancing, not very rapidly, perhaps, but still with success. The Iron and Coal Masters' Association has been instrumental in arousing the attention of parents to the intellectual requirements of their children, and the consequence is that schools are now more fully attended than they ever have been before. For many years the Welsh colliers would neither learn English themselves nor suffer their offspring to do so. There was a strong and inveterate bigotry displayed against any such instruction, and thus few could read books, or even write their own names. Reading-rooms were unknown—schools neglected; and the public-house was made the only place of relaxation after the day's labour. Happily this state of things is now slowly departing. Day schools are crowded with the young, and many of the colliers themselves gladly attend evening seminaries. It is the course of teaching limited to the elements of knowledge, for in many parts music societies have been established and are doing remarkably well. We may

half with gratification signs of progress like these, and look forward with confidence to the time when they will likewise be manifested in districts where ignorance holds undivided sway at present.

The new cargo dock has recently been constructed at Cardiff by Messrs. Hill and Sons, of Bristol, and on Saturday last it was opened with the usual ceremonies; it is situated at the head of the West Butte Dock. The width of the entrance is 40 ft., 13 ft. depth of water over sill, but although the whole length is only 338 feet, it is formed to be capable of accommodating two vessels of the respective lengths of 165 ft. and 135 ft., thus giving room for about 560 or 600 tons more shipping than if it had been constructed on the ordinary principle. It is built entirely of stone, and the bottom is also paved with stone; that in the side is blue limestone, whilst the entrance lock is fitted with a garrison built of iron, by Messrs. Finch and Heath, of Cheltenham, the aproned contractors for the celebrated Chepstow Railway bridge. The dock can be dried in about two hours. The erections in the yard were by Messrs. Flower, of Bristol, and comprise a large smithy, with powerful fan-blows; it is fitted with a crane, and all other necessary apparatus for carrying on heavy descriptions of smith's work. A long range of buildings, containing joiners' workshops, general stores, and warehouse for Mania's yellow metal (the proprietors being agents for the port of Cardiff), offices and foreman's residence, and porter's lodge. For the convenience of vessels, requiring their rigging redressed, or sails repaired, there is a commodious loft, under which are the saw-pits and sheds for boats. Grind-stones, drilling-machines, centrifugal pumps, &c., are worked by steam-power, the engine having been supplied by Messrs. Hall and Bastard, of Glasgow. A splendid repast was given in the afternoon to inaugurate the opening.

The half-yearly meeting of the Penarth Harbour, Dock, and Railway Company, has just been held at Cardiff. The directors' report stated that the works relating to the harbour and railway are proceeding, and there is every reason to suppose they will be completed in the ensuing autumn.

While on the subject of docks, we may advert to a serious charge which has been brought against the harbour master at Swansea, Captain Pixley. A committee formed to enquire into the subject, unanimously decided that proof had been afforded of his having defrauded the harbour trust, and a few recommended prosecution in a court of law; this, however, was over-ruled, and Captain Pixley is permitted to resign, much to the displeasure of many classes in the town, who contend that the charge ought to be cleared up, one way or the other.

During the recent strike of colliers in Glamorganshire the West Glamorgan, the property of Mr. Nixon, was one of those completely deserted by the colliers, who, on resuming work at the close of the strike, found to their great astonishment, that many thousands of rats and mice lay scattered in the workings of the pit. Some were alive, but the majority were dead, and they literally covered the works. Near the localities where the horses used to feed the vermin literally lay in heaps, all dead, save a few unable to crawl, and as fearful was the noxious effluvia that no time was lost in clearing the works of the dead animals. It seems that the vermin are carried down the shaft in the bags used for taking chaff and grain to the horses in the workings, and that they multiply to an enormous extent, living on the debris of the meals made by men and horses.

At Trevelick Petty Sessions, on Wednesday, Mr. Mackworth laid several informations against Thomas Williams, a man at the Ebbw Vale Company's No. 5 pit, for allowing colliers to work with candles and unlocked lamps in an explosive part of the mine. There has been an explosion fatal to three men lately at the company's collieries in a place where an accumulation was thought unlikely. John Williams did not, as required by the rules, report the gas to the agent, although he placed a danger signal at the shaft every morning and evening. When the inspector paid his visit the gas fired in his lamp, he found a collier working with an unlocked safety-lamp, the hauler carrying a naked light, and the colliers were carrying naked lights up and down the heading within 12 yards of the accumulation of gas, which had been there five or six days—the rule of the colliery being that locked safety-lamps alone should be used in that district of the colliery. Mr. Williams, of the Ebbw Vale Iron Company, who defended the accused, said that the place was not dangerous, and that it was unnecessary to work with safety-lamps, or to report to the agent. The fireman and overman were fined 10s. each, and costs.

At the same time, John Jones, fireman, and Elisha Robins, collier, at the Trevelick Collieries, were fined 2s. 6d. each, and costs, for not having attended to the roof in a stall, by which James Robins was, on Feb. 12, killed.

THE IRON AND METAL TRADE OF SOUTH STAFFORDSHIRE.

[FROM OUR CORRESPONDENT IN WOLVERHAMPTON.]

MARCH 11.—What has been said of the iron trade week after week for some time may again be repeated. The United States' advances this week bring a few orders, and promise more shortly, and, if anything, the home demand is fully as good as it was. Pig-iron is not being sold at lower terms—3s. 12s. 6d. to 3s. 15s. being received for good qualities of hot-blast pigs, but stock are said to be accumulating in the hands of some makers.

The present severe weather keeps up the demand for coal used for domestic purposes; but as the demand for the blast furnaces, puddling furnaces, &c., is much less, prices tend rather downwards, and the colliers east of Dudley are under notice for a similar reduction, which has taken place in the rest of the district.

The general hardware trade shows no decided improvement. The home demand is extremely flat. Some few orders, but chiefly small in amount, have been received this week by the mails from Bombay, the West Indies, and the west coast of South America. The Australian advances received this week are, as anticipated, extremely unfavourable in respect to the trade of this as of most other districts. They describe the market as glutted with hardware goods; and one of the largest Melbourne houses which imports this class of goods is offering 10s. in the 11. The same pattern is that no material improvement in the Australian trade is expected within the next few months.

The inquest on three of the men killed by the boiler explosion at Tivendale has terminated. The boiler has been carefully examined since the explosion, and evidence was given by Mr. Chillingworth, of Birmingham, and Mr. J. Cartwright, to the effect that the boiler had been overworked, and had been red hot from want of water. A third engineer, however, Mr. G. Smith, of Dudley, was of opinion that the plates of the boiler had not been red hot, although the explosion took place from over pressure. The boiler had been repaired last Christmas. The jury returned the following verdict:—"That the deceased were killed by the explosion, which explosion was caused by an undue pressure of steam, but there was no evidence to show the cause of such pressure."

The Assizes have been held for this county during the present week, and present a few matters noticeable in connection with the mining and manufacturing pursuits of the county. In the first place there was on Monday a magnificent entertainment given by Philip Williams, Esq., the High Sheriff for the year, on his entering upon the duties of that office. Mr. Williams, the Chairman of the Ironmongers' Association for South Staffordshire and East Worcestershire, is a banker, and one of the wealthiest men in the district, in which he is held in great respect. His elevation to the ancient and honourable office of Sheriff has been the cause of much satisfaction in the district, and nearly 1000 persons, from all parts of the county, sat down to the sumptuous banquet which he had provided on Monday, despite the heavy snow that fell and the intensity of the cold. After the *dejeuner*, which was a most plentiful one, a procession, containing upwards of 200 carriages, followed his magnificent coach to Wolverhampton, whence a special train conveyed him and his friends to Staffordshire. On the long route the roads and streets of the towns were lined with spectators, who greeted the great ironmaster with hearty applause; whilst banners dreamed from different points of the route in honour of the occasion. A more magnificent expression of genuine and deserved respect could not be imagined.

Reference was made in this letter, two years ago, to a doctrine laid down at the Staffordshire Lent Assizes, in 1856, by Mr. Baron Bramwell, in his charge to the grand jury with respect to the crime of manslaughter. In the case to which the learned Baron's remarks applied, the "doggy" of a pit had neglected a duty—laid down by the special rules established under the Act for the inspection of collieries—of examining the state of the air in the mine in the morning by means of a safety-lamp before the men descended to work in it. He stated that some doubt as to several men lost their lives in consequence. Mr. Baron Bramwell directed the grand jury, that if the prisoner was only guilty of an act of omission, even if they were satisfied that this act caused the death of the deceased, the mere omission of a duty would not constitute the crime of manslaughter. I ventured to express astonishment at such a doctrine, as contrary to common sense, whatever might be its legal correctness, but it now appears that legal doctrines are not in this case contrary to reason and justice. At the present Assizes, a case precisely similar both in the principle involved and in the general facts, was the subject of remark by Mr. Baron Channell in his address to the grand jury. He stated that some doubt had been expressed whether the mere omission of a duty incumbent upon a person, and resulting in the death of others, would render him liable to the charge of manslaughter, but the question having been referred to a superior court, it was decided that such an omission leading to such a result involved the crime of manslaughter.

REPORT FROM YORKSHIRE, DERBYSHIRE, AND LANCASHIRE.

[FROM OUR CORRESPONDENT IN CHESTERFIELD.]

MARCH 11.—The Coal Trade is dull and inactive, and but little evidence is afforded of an immediate prospect of improvement. The late prices are well maintained, and as regards the workmen there appears to be a general feeling of contentment prevalent, and no desire on the part of the men to promote a strike.

The Hollingwood Pit, at Staveley, is again at work, but the four bodies affected are as yet undiscovered. There is a tolerably good yield of coal from the pit, which is compensating the owner to some extent for the serious loss occasioned by the accident.

On Tuesday a lecture was delivered at Staveley "On the Chemistry of a Coal Pit," by Mr. W. Rich, Mr. J. Heaton presided. The lecturer explained the component parts of coal and its decomposition in pits, and also of the nature of its manufacture into gas. The nature of fire damp was explained, as was also the utility of safety-lamps.

The Egan Mine is not looking so well, and it is reported that the vein in fore-field has gone blind. Hence the fall in the value of shares, which are now quoted at from 43s. to 49s. Chapel Dale Shares are not very firm, there being no buyers above 2s. 10s. prem. There was a sale at the Mill Town Mine on Wednesday of 235 loads. It was calculated that there would be 300 tons dressed, but the severity of the frost and the derangement of the dressing apparatus prevented the completion of the whole of the ore raised to the surface. This, however, will make the next measure the greater.

The New Midland Mine is progressing satisfactorily, and the shares are firm in the market. The Mill Dam Mine is making good progress, and the shares are much firmer in the market. The last report of the agent is as follows:—"Very satisfactory progress has been made since my last report. We have done good work, considering the disadvantages we have had to labour under. The level is now cleared out 38 yards; I have dished the same, and find it takes a very circuitous course. For this reason I have suspended operations therein for the present for the purpose of ventilation. I am driving a top-gate in the old workings, 7 fms. higher than the bottom level. I have already driven 15 yards, and have another 6 yards to drive; then I shall be able to raise the water into the upper level, which will give ventilation, and afford greater facilities for getting out the sediment, and will also be a refuge for the men to flee to should the water suddenly burst in upon them. I have put some additional men on, and intend to work night and day. I would advise that

we should put down a good engine-shaft. This will not interfere the least with the opening of the level; no doubt there will be sufficient ore raised to defray the major part of the expenses incurred in sinking the shaft, and then the day is not far distant when Gatefield Mine, along with Mill Dam and Smithy Co., will stand second best to very few in the Peak of Derbyshire."

The committee of North Derbyshire have purchased the engine from the Bowling Iron Company for 2250l., to be fixed at Calver. The shareholders in the mine must be prepared to advance a further amount of capital, as the 5000l. now called for will be insufficient.

Without any explanation of the grounds upon which their decision was based, the Wigan Justices have confirmed the rate imposed upon the Ince Hall Coal and Cannel Company. From the evidence taken with reference to the appeal, it would appear that the decision was anything but justifiable. The overseers, in August, increased the rateable value of the colliery from 2350l. to 3300l. It was shown to the overseers, on behalf of the company, that the rate of coal, instead of having been increased, had been in August last materially reduced, and that 41,739 tons was within a few hundred tons of the actual amount raised for the whole colliery, and that the proportion of the rate was pretty nearly equal to what it was in the year 1856. The overseers then no attempt to disprove these statements, yet the decision was given in favour of the overseers, for reasons which may perhaps hereafter transpire.

INDUSTRIAL PROGRESS ON THE CONTINENT.

[FROM OUR PARIS CORRESPONDENT.]

MARCH 10.—A decided improvement has taken place in the metal market, which, when compared with the state of other articles of produce, and even of securities and shares of all descriptions, is quite exceptional, and, doubtless, agreeably surprising to manufacturers. An order was given the other day for Champagne refinery pigs, to be delivered in three months, at 155 frs. per ton, being a rise of 5 frs. Pigs for the second melting are more sought after at 170 frs. in the St. Didier station, probably in consequence of the improvement in the Glasgow market some time back. Wrought iron of all descriptions are in more active demand, and orders are well sustained at 170 frs., and rolls at 310 frs. to 330 frs., in the station. The nailmakers of Paris have raised their prices 20 frs. the ton upon those that were current last month; the tariff is now—No. 13, 670 frs.; No. 14, 640 frs.; No. 15, 610 frs.; No. 16, 580 frs.; No. 17, 550 frs.; No. 18, 520 frs.; No. 19, 500 frs.; No. 20, 480 frs.; and No. 21, 460 frs. The Moselle masters, whose prices were 10 frs. per ton less than these, have doubtless by this time raised them to the same level, for it was their intention to follow the lead here. English copper has, of course, fallen in proportion to the depreciation which has taken place in London. Russian is quoted at 320 frs. to 340 frs. per ton; Lake Superior, at 310 frs. to 315 frs.; Chili, at 295 frs. to 300 frs.; and Corocoro, at 300 frs. Tin: Banca, at 310 frs. to 330 frs.; Spanish Lead, at 650 frs. Steel, at 750 frs. Sicilian spelter at 720 frs., and sheets at 800 frs. per ton.

The Bulgarian iron and iron ore trades are brisk. Refinery pigs are firm, with an inclination to rise, and the rolling mills are in full work, without any alteration in the prices. Coal is still in small request, except the sort required for brick making, but an improvement is anticipated.

A new mode of tempering steel and of hardening cast and wrought-iron has been communicated. It consists in heating the metals in contact with certain chemical agents up to the required temperature, and subsequently plunging them in water, oil, or chemical solutions. For this purpose—that is, to temper steel—one part of chromic acid of potash, one part of chloride of sodium, and two parts of prussiate of potash are mixed, and the mixture is placed in a vessel, and an iron rod is placed in a furnace. The surface of the mixture is covered with powdered charcoal to prevent the escape of gases during firing, which is maintained until the contents of the vase are melted. The steel articles are then plunged into the mixture, and allowed to remain there until they have acquired the same temperature, when they are withdrawn, and plunged into water, oil, &c. To harden forged iron 25 parts of prussiate of potash, 65 parts of chloride of sodium, and 10 of bichromate of potash are reduced to powder, with a small quantity of animal charcoal, and treated as before. When brought in a state of fusion the articles are plunged in and allowed to acquire the same temperature, after which they are withdrawn and plunged in water, &c. Cast iron is treated in the same way as wrought-iron, with the exception that the proportion of animal charcoal is reduced, and that of chloride of sodium increased. The articles may be heated before being plunged in the mixture, for the sake of economy.

An invention, which is stated to be of importance to textile manufacturers and bleachers, has been made by M. Kestner, of Thunn, who has brought it under the notice of the Industrial Society of Mulhausen. The object is the regeneration of peroxide of manganese. In the preparation of chlorine by the action of hydrochloric acid or peroxide of manganese a chloride of manganese is obtained, which is a useless product, and, therefore, lost. M. Kestner treats the chloride of manganese with carbonate of lime in closed vessels under a pressure of 60 lbs. to the inch. The result was a carbonate of manganese, which, by heating in free air at from 535° to 572° Fahr., he regenerates and obtains peroxide of manganese at 75°.

GOVERNMENT SCHOOL OF MINES.

The lecture by Mr. WARRINGTON SMYTH was a continuation of that on "Dressing." In many of the operations for collecting the mineral mass depended upon their various specific gravities. Grains of gold and galena it was easy to separate from the mineral belonging to them. With regard to this, through which the larger pieces did not fall. In the stamps there was either a grating or bars, which would not allow the stuff to be carried away. The large material is that which is generally obtained for the crusher; the stuff which is sometimes difficult to ascertain what they consisted of, and they were generally subjected to a process called "jigging." Sometimes this was performed by hand over a box or hatch, with a sieve of different meshes, according to circumstances, a given quantity of stuff was placed in this, and being shaken in water with a rotary motion, the particles were raised up and descended according to their specific gravity, and might generally be divided into three divisions—the upper, or the first, was called the skimmings, or chata, and was generally thrown away, and fresh material then added; the second portion is taken off, while the lower remains as a bed; that which falls through the sieve into the pit is denominated the hatch work, and in the North of England smithies. When jigging is required on a large scale, the sieves are worked with a level and break-stuff, or elastic piece of wood, so as to give the necessary motion. Occasionally a boy is placed upon a stool, jumping up and down for the same purpose; this, however, may be considered as a very primitive mode of performing the operation. A diagram of a jigging machine was then exhibited and described, where two break-stuffs are used. In many mines, especially where they are argentiferous, and the ore not in such large masses as it is in those of galena, as well with copper ore, where many people are required, machinery is employed; sometimes an overboard water-wheel is used; a model of one of these, which is in operation at Mr. Beaumont's mines, in Northumberland, was shown and described. One of the greatest improvements in the jigging machine was that invented about the year 1830 by Mr. Thomas Petherick, commonly called "Petherick's separator." These were introduced in the eastern part of the county of Cornwall, and had since been adopted in some parts of Germany; these were found useful there for the purpose of dressing coal. The arrangement of these was, there was a large hatch covered over, with the exception of four orifices, in which the sieves could be placed; in the middle there was a plunger, which gave a downward motion, and was so great as to cause the contents of the hatch to be driven down to the bottom of the hatch. These could be seen at the Fowey Consols, Far Consols, and the Kneobarnham Mine near Waterford, the property of the Mining Company of Ireland; they were very useful, and it was a matter of wonder they were not more extensively employed. An adaptation of this, with a flow above with hatches, has been found very important in the dressing of coal. The lecturer then alluded to the separation of coal from pyrites by Baron von Bucht. In the museum there was a plan of a machine of M. Berard, of St. Etienne, for the dressing of coal, for which this gentleman had awarded him a medal at the great Exhibition of 1855. The machine consisted of a table, or cor, and a period for stopping. Berard gives the plan an inclination. With out it is the converse of metallic minerals; the lighter being in the former case the most valuable, while in the latter it is the heavier; and by passing a stream of water, and keeping the machine supplied, there is a continuous filling and jigging. With the exception of Blittinger and Vogel, none of those connected with metallic mines appear to have directed their attention to a continuous system of jigging. Experiments had, however, been made upon this, but these had not as yet been sufficient. They had not looked at the smaller portions which came from the hatch work and the waste. We have not many instances of jigging machines for it as they had on the Continent; with as it was indiscriminately called work, or stuff. The lecturer then gave a description of the common buddle. The stuff there, according to certain conditions, was deposited either in the upper or lower part of the plane. It was desirable, as far as possible, to divide them into groups, so as to separate them from 1 to 2, 3, and 4, and let the waste go away. Unfortunately, in practice this is not the case. Sieves would here not be found efficacious, and the old way has many defects; several improvements, however, had been lately made in the neighbourhood of Radrath. Mr. Warrington Smyth then referred to the jigging machine which he called the "Hun-gary jig." We have not many instances of jigging machines for it as they had on the Continent; with as it was indiscriminately called work, or stuff. The lecturer then gave a description of the common buddle. The stuff there, according to certain conditions, was deposited either in the upper or lower part of the plane. It was desirable, as far as possible, to divide them into groups, so as to separate them from 1 to 2, 3, and 4, and let the waste go away. Unfortunately, in practice this is not the case. 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Messrs. FULLER and Co. have FOR SALE Dividend Shares, much below their value, and must increase in price; also, a few shares conducted on the Limited Liability Act, which in a short time will become a safe dividend property; also, Shares in the leading Banks, and £2000 Railway Bonds.

Every information afforded at the office, between Ten and Five. Communications promptly attended to.

THE GREAT EAST TAMAR MINE.

IN 6000 SHARES.
OFFICES.—20, ST. HELEN'S PLACE, LONDON, E.C.

SECRETARY—Mr. George Lavington.

The Great East Tamar Mine is situated in the parish of Beerferris, in the county of Devon, and is surrounded by valuable and productive mines. It is traversed by a road which, in the contiguous sets, have been successfully and profitably wrought. On the north, the adventurers of the old Butte Fill Mine raised some hundreds of tons of ore, and followed the lode beyond their own boundary into this set. On the south, the East Tamar Consols Company is working on the same lode, which, as it approaches the Great East Tamar Mine, is becoming very productive, carrying a fine course of lead ore, with every prospect of a continuation. The South Tamar Company also worked this lode, and had paid dividends to the amount of £30,000, when, through their exploitations approaching too near the bed of the river, it broke in and stopped operations. For upwards of three miles in length the country is traversed by this great vein, and it has never failed to reward the adventurers who have explored it. The mine is most advantageously situated for economical working, being close to the quay on Tamar river, to which there is easy access, rendering the cartage to and from ore and materials very cheap.

An adit has been driven by the adventurers in the adjoining mine into this set, and can be carried on at a very moderate outlay, proving the lode for 60 fms. deep. Judging from the fact that this lode has already, in adjoining mines, proved so remunerative, and that the expenses of cartage and of working will be exceedingly light and comparatively small, it has every feature of encouragement to recommend it to the attention of capitalists, and will, without doubt, prove highly remunerative with but little expenditure of time and money.

Application for shares to be made to the secretary, at the offices of the company, where plans and reports can be seen, and every information had.—March 5, 1858.

PWLL-Y-WHEEL LEAD MINE (LIMITED), MOLD, FLINTSHIRE.

Capital £4200.—Divided into 560 shares, at £7 10s. per share.
This mine is situated to the east of Maesefin and Jamieson Mines, and in the same bearing strata; has been very productive so far as trial has been made, 15 fms. workings on the vein having produced 150 tons ore, and the set extends east nearly half-a-mile on the range of the vein.

The engine-shaft has been sunk 130 yards. A 45 in. cylinder engine has been erected, with 14 in. pitwork, complete; capstans and ropes; whimsy and rope; smithy and dressing-floors. Also, an 18 in. cylinder sawney engine, complete. Royalty at 1-12th.

The above mine was suspended in November last, in consequence of several of the shareholders not being able to pay the calls. £2500 is to be paid to the present proprietors, who are now very productive so far as trial has been made, 15 fms. workings on the vein having produced 150 tons ore, and the set extends east nearly half-a-mile on the range of the vein.

A call of £5 per share will be made at once, and the remainder when required.

Capt. EDWARD ROBERTS, Coal Hendre Mine, near Mold, who inspected the mine; and Capt. SHARPLES, the late agent, will give any information that may be required.

Application for shares to be made to Capt. PHILLO and Mr. DYER, Mold.

Mold, Feb. 18, 1858.

PRESAVERN MINE, CORNWALL.

The adventurers having given notice to determine the set, under a power therein contained, an opportunity offers for a good company, under spirited management, to work this celebrated mine under a new set; and arrangements may be made in reference to taking the machinery at a valuation.

The mine is so well known, that it is almost needless to say that for many years it has been worked at a profit, and has made extraordinary returns to the adventurers, having produced dividends, since the working in 1819, amounting to more than £450,000 (being about one-third of the value of the ore raised), mainly from one lode, known as the Old Lode.

There are also many parallel lodes, and there is every prospect, under a prudent and spirited management, of the adventure being a most profitable investment.

For particulars and to treat for the set, application should be made to RICHARD ROBERTS, Truro, Cornwall.—Truro, March 12, 1858.

CALSTOCK AND EDWARD CONSOLS.

This mine is situated west of Wheal Edward and Calstock Consols, and immediately adjoining the latter mine, which during the last twelve months has been making great returns, and where there are present 140 tons of rich copper ore ready for sampling. The lode so productive in Calstock Consols, with several others, traverse this set about a mile from east to west, in a congenial stratum of killas. There are also two cross-courses running north and south; one of these producing good stones of lead, proves this a feature also worthy of notice. About 20 fms. west of this north and south lode an engine-shaft of ample dimensions has been commenced, to intersect three of the Calstock Consols lodes, at from 30 to 40 fms. deep, when such results may be safely relied on to remunerate the necessary outlay. It unquestionably merits attention that this mine is parallel to, and about half a mile south of, Hingston Down Consols, in the granite. The ground being so near the granite, and the lodes being so close to the backs of the lodes impregnated with copper, together with the facilities of transit to and from the River Tamar, the proprietors reasonably anticipate developments inferior to none in this neighbourhood, so productive of copper, tin, and silver.—Further particulars may be obtained from Capt. ARTHUR DOWNS, Gunnis Lake, Calstock.

P.S. In addition to the above, there is the advantage of sufficient water to work a wheel of 50 ft. diameter and 2½ ft. breast, which would drain the mine well to the depth of 60 or 70 fms. Such an advantage is rarely to be met with, and the cost of working is thus considerably lessened, in comparison with steam-power.

HUCKWORTHY BRIDGE MINING COMPANY.

A MEETING of adventurers in HUCKWORTHY BRIDGE COPPER MINE was held at the account-house on Thursday, the 25th of February, 1858, pursuant to notice.

Present.—Mr. T. NICHOLLS, in the chair.
Mr. John Pearce. Mr. W. A. Palmer. Mr. E. Crocker.
Mr. C. H. Daw. Mr. Bastin. Mr. Joseph Gilbert.
Mr. W. G. Gard. Mr. B. Toop. Mr. J. Pryor.
Rev. W. Stracey. Mr. H. Toop. Mr. W. E. Commins.
Capt. J. Key.

The notice convening the meeting was read.

The minutes of the former meeting were read and confirmed.

The statement of accounts presented having been examined and found correct, it was resolved.—That the same be passed.

In consideration of there being available assets amounting to £103 19s. 9d., as shown by the account-book, with the fact of the water-wheel being paid for.

Resolved.—That the question of a call be postponed until the next meeting.

A report from Capt. Key was read, advising the sinking of a shaft forthwith.

Resolved.—That it be received and adopted, and, with the accounts, be printed and circulated amongst the shareholders.

The sinking of a shaft being contemplated,

Resolved.—That the committee be empowered to call for tenders for removing the water-wheel from Old Wheal Robert, and erecting the same on this mine, so soon as the wheel-pit shall be ready to receive it.

Resolved.—That the gentlemen composing the committee be, and are hereby, re-elected for the ensuing three months; and that an expression of the thanks of the company be given them for their past valuable services.

The purser having read a letter from the steward of Sir Massey Lopes, signifying his willingness to reduce the price to be charged for damaged land from £200 per acre to £100, together with permission to sink a shaft in ground heretofore reserved.

Resolved.—That this company, being sensible of the liberality of Sir Massey Lopes, do recognise the same by an endeavour to successfully develop the mineral resources of the set.

Resolved.—That the thanks of the meeting be given to the Chairman, for his conduct on this occasion.

Signed, THOS. NICHOLLS, Chairman.

BALANCE-SHEET OF HUCKWORTHY BRIDGE COPPER MINE, 25th February, 1858.

Dr.—Balance due to 23d November £ 46 6 1

October labour £ 37 4 9

November labour 28 11 10

December labour 25 15 9

Crocker and Gilbert's bills 6 13 9

Mrs. Merrifield's bills 15 10 6

Messrs. Gill, Sons, and Co. 2 15 9

Interest, commission, &c. 4 4 9

Cash at bank £ 180 17 0

Ca.—Calls received since meeting of 23d November £ 158 7 0

Cash for forfeited shares sold 22 10 0

Balance required before next meeting £ 180 17 0

LIABILITIES.

Dr.—Mrs. Merrifield £ 9 1 6

Skinner and Son 9 15 3

T. B. Chave 4 17 7

Nicholls and Co. 1 12 4

J. M. Arnold 0 3 6

Three months' cost, say £ 25 13 2

ASSETS.

Ca.—Balance brought down £ 4 4 9

Arrears of calls 77 5 6

Forfeited shares to be sold 22 9 6

Balance required before next meeting £ 103 19 9

REPORTS.

Feb. 25, 1858.—In accordance with the proposition made in my report for our last general meeting I put two men to shade for the great cross-course, which was met with about 70 fms. ahead, or to the east of our present adit; and we opened on its course for a great many fathoms, and found it to be large and of the same character as it is in the Old Wheal Friendship and the Devon Burra Mines—a very pretty cross-course. The lode in the adit end is still large, but at present not carrying so much ore as we have had; but it is very promising, with more water issuing from the adit. I now strongly recommend the sinking of an engine-shaft where we have already got a good shaft. This I hope will be decided on at the meeting to be held to-day; at the same time, I would recommend the removal of the wheel, and the preparation of other work in connection with its erection at this mine. In conclusion, I cannot help again expressing my firm belief in the success of the undertaking at an increased depth, and that we shall be discovering copper ore very soon after we begin to sink below the adit level.

Signed, JOHN KEY.

March 1, 1858.—Having recently inspected this mine, I beg to hand you the following remarks thereon:—The set is extensive, and contains several lodes and cross-courses. On one lode an adit level has been driven about 80 fms.—this lode averages about 3 ft. in width, and in places presents a very promising appearance, producing some very rich red copper ore. There is an ample supply of water-power for all purposes connected with the mine; and I am of opinion that when this mine is fairly laid open it will become profitably productive.

To T. Nicholls, Esq. J. COCK, River Tamar Copper Mining Company.

Mining Offices, Tavistock, March 1, 1858.—Sir: In sending you the minutes of the meeting held on the 25th of February, I have much pleasure in informing you that a stone of ore broken from the adit level on the same day yielded 54½ per cent. of fine copper. The shaft will be commenced over that part of the lode where the ore was broken.

W. E. COMMINS.

UNITED STATES OF AMERICA.—DUPPE, PERKINS, and SAYLES, BOSTON, MASSACHUSETTS, BROKERS for the PURCHASE and SALE of STATE, CITY, and RAILROAD SECURITIES, MANUFACTURING and BANK SHARES, &c. Particular attention to the MINING COMPANIES OF LAKE SUPERIOR. I furnish reliable information concerning them.

[DUPPE, PERKINS, and SAYLES refer to the Editor of the Mining Journal.]

LANCASTER AND CARLISLE RAILWAY.

TENDER FOR CHAIRS.

The Directors are prepared to receive TENDERS for 1000 tons of CAST-IRON CHAIRS. Patterns and specifications may be seen at the Castle Station, Lancaster. Sealed tenders must be sent in not later than the 23d day of March next, addressed to the Secretary of the Lancaster and Carlisle Railway Company, Lancaster, and endorsed "Tenders for Chairs." The directors do not bind themselves to accept the lowest tender.—Lancaster, Feb. 24, 1858.

CHALLENGE IN PUMPS AND TUBES.—T. C. CLARKSON, PATENTEE, 56, STAMFORD STREET, BLACKFRIARS ROAD, OFFERS TO DISCHARGE MORE WATER OR LIQUID MANURE WITH ONE OF HIS PATENT PORTABLE PUMPS THAN ANY FOUR PUMPS NOW used by the agriculturist; the men to carry the pumps were required and work them.

PUMPS AND AIR AND WATER-TIGHT TUBES FOR VENTILATING MINES, OR CONDUCTING WATER, any length or diameter, without joints. A pair of pumps to be seen at work at the above address.

PUMPING AND WINDING ENGINES.—FOR SALE, an excellent 50 in. PUMPING ENGINE, 10 ft. stroke, two boilers 10 tons each, in perfect condition, nearly new, with fire-proof case. A 24 in. WHIM HOISTING ENGINE, with 10 tons boiler, nearly new, in excellent condition, and drawing machine attached.

As these engines are very superior in make and condition, parties requiring engines will do well to examine them.—Apply to Mr. C. WACZAR, 21, Southwark, Exeter.

GREAT WHEAL VOR UNITED MINES.—Notice is hereby given, that the QUARTERLY GENERAL MEETING of adventurers in the above mines will be HELD at their office, Gresham House, Old Broad-street, on Wednesday, the 17th March, at Twelve o'clock precisely. R. T. ALISON, Sec. Gresham House, Old Broad-street, London, E.C., March 6, 1858.

SOUTH BOG MINING AND SMELTING COMPANY (LIMITED).—Notice is hereby given, that, in conformity with the Articles of Association, the SECOND QUARTERLY ORDINARY GENERAL MEETING will be HELD at the office of the company, 61, Moorgate-street, on Monday, the 29th of March, 1858, at Twelve o'clock precisely.

The Transfer-books will be closed from the 20th to the 29th inst., both days inclusive. By order, HIRAM WILLIAMS, Sec. and Manager.

SOUTH-WEST OF IRELAND MINING COMPANY (LIMITED).—Notice is hereby given, that a SPECIAL GENERAL MEETING of this company will be HELD at the offices of the company, 26, Throgmorton-street, in the City of London, on Thursday, the 15th day of April next, at Eleven o'clock in the forenoon precisely. By order, J. CASH, Sec. pro tem. 26, Throgmorton-street, March 11, 1858.

THE GOVERNOR AND COMPANY OF COPPER MINERS IN ENGLAND (A.D. 1691).—Notice is hereby given, that the ANNUAL GENERAL COURT of this company will be HELD at the London Tavern, Bishopsgate-street, on Wednesday, the 7th April next, at Twelve o'clock at noon precisely. In pursuance of the provisions of the Company's Charter, the following gentlemen will retire from the Court of Assistants, but, being eligible for re-election, will offer themselves for that purpose:—Sir John Henry Pelly, Bart., Governor; Capt. Charles John Bosanquet, R.N.; William Gilbertson, Esq.; and John Perise Kennard, Esq. The Transfer-books will be closed from Wednesday, the 24th inst., to Wednesday, the 7th proximo, both days inclusive.

By order of the Court of Assistants, CHARLES FREWER, Sec. 10, New Broad-street-mews, London, March 1, 1858.

COPIAPO MINING COMPANY.—Notice is hereby given, that a GENERAL MEETING of shareholders of this company will be HELD at the offices, 2, New Broad-street, on Friday, the 19th inst., at Two o'clock precisely. By order of the Directors, EDWARD J. COLE, Sec. London, March 1, 1858.

THE LONDON AND VIRGINIA GOLD AND COPPER MINING COMPANY.—Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the stockholders of this company will be HELD at the office of the company, 34, Lime-street, in the City of London, on Tuesday, the 30th day of March next, at One o'clock in the afternoon, for the purpose of submitting reports from the mine, laying before them the financial position of the company, and deciding whether the directors shall make a further call on the shares, and of determining in such case the amount of such call.

By order of the Board of Directors, JOHN ANDERSON, Sec. 34, Lime-street, E.C., London, Feb. 25, 1858.

THE CENTRAL AMERICAN MINING COMPANY (LIMITED). Capital £30,000, in 6000 shares of £5 each.—Deposit £2 per share.

MANAGERS.—Messrs. John Taylor and Sons.

The object of this company is to continue the working of the mines of Atolepeque in Guatemala, and to erect works for the reduction of the ores of silver.

Prospectuses may be obtained, on and after the 9th inst., at the office of the Central American Mining Company, 5, Queen-street-place; and applications for shares are to be made to Messrs. JOHN TAYLOR and SONS, 6, Queen-street-place, Upper Thames-street, E.C., on or before the 24th inst.

N.B. In the allotment of shares, preference is to be given to the present holders of shares in the Nouveau Monde and Central American Mining Companies.

NOTICE TO SHAREHOLDERS.

IN THE ALLOTMENT OF SHARES OF THE CENTRAL AMERICAN MINING COMPANY (LIMITED), A PREFERENCE is to be given to the HOLDERS OF SHARES IN THE NOUVEAU MONDE COMPANY.

The terms of the agreement made with the Central American Mining Company are stated in the prospectus, which may be obtained on application at the office of the Central American Mining Company, No. 5, Queen-street-place, E.C., on and after the 9th inst.

DUSTON IRON ORE COMPANY (LIMITED).—Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the shareholders of the Duston Iron Ore Company (Limited) will be HELD at the company's offices, Wellington Chambers, Cannon-street, London, E.C., on Tuesday, the 16th day of March inst., at Two o'clock p.m. precisely, for the purpose of confirming or rejecting the following resolutions, which were only carried at an Extraordinary General Meeting, held at the said company's offices on the 20th day of January last, viz.:

That in the opinion of this meeting it is advisable to wind-up this company, and that immediate steps be taken to wind it up.

That the least expensive and most expeditious method of winding-up the said company will be that of the voluntary method, as enacted by the Joint-Stock Companies Act of 1856; and that it is the opinion of this meeting that the necessary steps should be taken immediately to carry the said winding-up into effect.

By order of the Board, THOMAS NURSE, Sec. Wellington Chambers, Cannon-street, London, E.C., March 9, 1858.

DUSTON IRON ORE COMPANY (LIMITED).—Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the shareholders of the Duston Iron Ore Company (Limited) will be HELD at the company's offices, Wellington Chambers, Cannon-street, London, E.C., on Tuesday, the 16th day of March inst., at One o'clock p.m. precisely, for the purpose of confirming or rejecting the following resolution, which was duly carried at an Extraordinary General Meeting, held at the said company's offices on the 9th day of March inst., viz.:

That the directors be, and are hereby, empowered to carry out all proper and necessary arrangements to abandon a contract heretofore entered into by the company, dated respectively the 1st day of July, 1854, the first of such agreements made between Lord and Lady Palmerston and the Rev. Robert Henry Cox, of the first part, and Messrs. John Carter Lucas, Thomas Lucas, Thomas Woolley, Thos. Baker, and Robert Beavor, of the other part, and the other of such agreements made between the said Lord and Lady Palmerston of the first part, the Hon. George Augustus Earl Cowper, of the second part, the said Rev. R. H. Cox, of the third part, and the said Messrs. John Carter Lucas and others, of the fourth part, and which said agreements, and the benefit thereof, were respectively referred to in two several agreements, dated respectively the 1st day of July, 1854, the first of such agreements made between Lord and Lady Palmerston and the Rev. Robert Henry Cox, of the first part, and Messrs. 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THE MINING SHARE LIST.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.	Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
3120	Alfred Consols (cop.), Phillack (S.E.)	21. 11s. 10d.	11 1/2	11 1/2	£18 3 0	£0 2 0	Feb. 2, 1888.	2500	Butte Marthys Steam Coal (L.)	30	—	—	—
1624	Balteswidden (tin), St. Just	11 1/2	7	7	12 5 0	0 5 0	Jan. 1, 1884.	5000	Chas. C. C. Consols (L.)	10	—	—	—
4000	Bedford United (copper), Tavistock	21. 6s. 3d.	7	7	9 10 0	0 2 0	March 4, 1888.	600	Calcutt Hall (lead), Limited	10	—	—	—
240	Bosman (tin), St. Just	11 1/2	7	7	21 0 0	3 0 0	Sept. 4, 1887.	2000	Calstock United (tin and cop.)	10	—	—	—
200	Bonall (tin), St. Just	11 1/2	7	7	3 0 0	0 0 0	Feb. 16, 1887.	1000	Cambridge Consols (lead)	10	—	—	—
1200	Brighdale and Progress, Derbyshire	91 1/2	200	195 200	420 15 0	2 10 0	Feb. 16, 1887.	4000	Cambridge Vein & Wh. Francis (S.E.)	18	—	—	—
1000	Brystal, Llanidloes, Montgomeryshire	7 1/2	2 1/2	1 1/2	0 0 0	0 0 0	Apr. 30, 1886.	600	Cambridge Vein & Wh. Francis (S.E.)	18	—	—	—
420	Buckin Consols (tin), Ferran	2 1/2	2 1/2	2 1/2	0 0 0	0 0 0	July 1, 1886.	916	Cambridge Vein & Wh. Francis (S.E.)	18	—	—	—
6000	Bulch (silver-lead), Cardiganshire	30. 1s. 6d.	1	1	0 0 0	0 0 0	July 1, 1886.	2540	Cardarvan United (lead)	12	—	—	—
4096	Calstock Consols (copper)	—	—	—	0 2 0	0 2 0	July 23, 1887.	4000	Cardarvan United (lead)	12	—	—	—
1000	Carn Brea (copper, tin), Illogan	15	55	50	237 10 0	2 0 0	Nov. 11, 1887.	7900	Cardarvan United (lead)	12	—	—	—
2018	Carnyorth (tin), St. Just	15 1/2	6	6	0 15 0	0 3 0	Nov. 16, 1886.	1000	Cardarvan United (lead)	12	—	—	—
200	Cefn Cwrm Brynno (lead), Cardiganshire	33	55	45	3 0 0	3 0 0	Oct. 4, 1885.	6400	Cardarvan United (lead)	12	—	—	—
2000	Collacombe (copper), Lamerton	5	16	14 1/2	2 5 0	0 0 0	Dec. 2, 1887.	1000	Cardarvan United (lead)	12	—	—	—
250	Conlurrow (copper, tin), Camborne (S.E.)	30	80	70 75	85 0 0	2 0 0	Jan. 1, 1884.	6000	Cardarvan United (lead)	12	—	—	—
1000	Craddock Moor (copper), St. Cleer	3	40	38 40	0 17 0	0 0 0	Jan. 1, 1888.	2000	Cardarvan United (lead)	12	—	—	—
30000	Craven Moor, Limited (lead), Yorkshire	6	—	—	0 0 0	0 0 0	Feb. 23, 1886.	30	Cardarvan United (lead)	12	—	—	—
128	Crynwistwith (lead), Cardiganshire	6	160	180	120 0 0	5 0 0	March 4, 1888.	200	Cardarvan United (lead)	12	—	—	—
280	Darwent Mines (silver-lead), Durham	300	150	150	132 0 0	10 0 0	Feb. 4, 1888.	6000	Cardarvan United (lead)	12	—	—	—
1034	Devon Great Consols (cop.) Tavistock (S.E.)	1	470	470 480	602 0 0	7 0 0	Jan. 23, 1888.	2000	Cardarvan United (lead)	12	—	—	—
672	Ding Dong (tin), Gwilt	3 1/2	18	18 18 1/2	16 7 6	1 0 0	Mar. 2, 1887.	1024	Cardarvan United (lead)	12	—	—	—
179	Dolcoath (copper, tin), Camborne	257 1/2	—	300	945 0 0	8 0 0	Oct. 12, 1887.	8000	Cardarvan United (lead)	12	—	—	—
12800	Drake Walls (tin, copper), Calstock	11. 19s.	2 1/2	2	0 13 6	0 2 0	Sept. 11, 1887.	12000	Cardarvan United (lead)	12	—	—	—
800	East Daren (lead), Cardiganshire	32	100	100	39 0 0	3 0 0	Feb. 13, 1888.	4000	Cardarvan United (lead)	12	—	—	—
2018	East Falmouth (copper), Whitechurch	2	4 1/2	4 1/2	0 7 6	0 2 0	Feb. 23, 1888.	12000	Cardarvan United (lead)	12	—	—	—
128	East Pool (tin, copper), Pool, Illogan	2 1/2	340	150 200	297 10 0	2 10 0	Feb. 23, 1888.	12000	Cardarvan United (lead)	12	—	—	—
1024	East Wheal Margaret (tin, copper)	2 1/2	3 1/2	2	2 0 0	0 0 0	Feb. 23, 1888.	12000	Cardarvan United (lead)	12	—	—	—
3700	Exmouth (silver-lead), Christow	41. 14s.	8	8	10 10 0	0 0 0	Feb. 23, 1888.	12000	Cardarvan United (lead)	12	—	—	—
1400	Exton Mining Company (lead), Derbyshire	5	45	45 45	16 13 4	1 0 0	Dec. 26, 1887.	1000	Cardarvan United (lead)	12	—	—	—
4910	Fowey Consols (copper), Tywardreath	4	4	3 1/2	41 4 3	0 0 0	Dec. 26, 1887.	1000	Cardarvan United (lead)	12	—	—	—
4448	General Mining Co. for Ireland (cop., lead)	1	2	2 1/2	1 0 0	0 3 0	June 5, 1883.	1000	Cardarvan United (lead)	12	—	—	—
30000	Goginan (silver-lead), Cardiganshire	1	—	—	22 0 0	0 0 0	Sept. 5, 1880.	1000	Cardarvan United (lead)	12	—	—	—
1024	Gonnamena (copper), St. Cleer	12 1/2	15	10 12	0 7 6	0 0 0	Dec. 31, 1882.	1000	Cardarvan United (lead)	12	—	—	—
243	Grambler and St. Aubyn (copper)	109 1/2	115	110 115	7 0 0	1 0 0	Jan. 5, 1888.	4096	Cardarvan United (lead)	12	—	—	—
8000	Great South Tolgus (S.E.)	2 1/2	16	15 1/2	1 14 6	0 5 0	Feb. 18, 1887.	3907	Cardarvan United (lead)	12	—	—	—
6686	Great Wheal Vor (tin, cop.), Helston (S.E.)	3 1/2	1 1/2	1 1/2	0 5 0	0 5 0	Oct. 22, 1884.	10000	Cardarvan United (lead)	12	—	—	—
119	Great Work (tin), Gernoe	100	140	—	221 10 0	7 10 0	Feb. 27, 1887.	4568	Cardarvan United (lead)	12	—	—	—
1024	Herodolot (lead), near Liskeard	8 1/2	7 1/2	7 1/2	3 15 0	12 6 0	Jan. 23, 1888.	4000	Cardarvan United (lead)	12	—	—	—
6000	Hingston Down Consols (copper), Calstock	3 1/2	6 1/2	6 1/2	2 16 0	0 2 0	Nov. 25, 1886.	4315	Cardarvan United (lead)	12	—	—	—
1000	Holyford (copper), near Tregarth	11	8 1/2	8 1/2	4 2 6	0 5 0	Jan. 25, 1887.	3000	Cardarvan United (lead)	12	—	—	—
2500	Isle of Man, Limited (lead)	25	41	42	55 17 3	1 0 0	Dec. 16, 1887.	250	Cardarvan United (lead)	12	—	—	—
76	Jamaica (lead), Mold, Flintshire	31. 13s. 6d.	—	—	380 0 0	5 0 0	Mar. 10, 1881.	4096	Cardarvan United (lead)	12	—	—	—
20	Laxey Mining Company, Isle of Man	100	1000	1000	1420 0 0	50 0 0	June 30, 1887.	83	Cardarvan United (lead)	12	—	—	—
160	Levant (copper, tin), St. Just	3 1/2	115	110 120	1064 0 0	2 0 0	Sept. 2, 1888.	512	Cardarvan United (lead)	12	—	—	—
5000	Lewes Mines (tin, copper), St. Erth	6s. 11d.	2	2 1/2	0 10 0	0 10 0	Dec. 20, 1885.	1024	Cardarvan United (lead)	12	—	—	—
400	Lisbarn (lead), Cardiganshire, Wales	18 1/2	120	120	307 10 0	3 0 0	Feb. 4, 1888.	6144	Cardarvan United (lead)	12	—	—	—
6000	Marke Valley (copper), Caradon	41. 10s. 6d.	2	1 1/2	0 5 0	0 3 0	Sept. 7, 1885.	6144	Cardarvan United (lead)	12	—	—	—
5000	Mendip Hills (lead), Somerset	3 1/2	1 1/2	1 1/2	1 7 6	0 3 0	Sept. 29, 1887.	6144	Cardarvan United (lead)	12	—	—	—
5000	Merrill (lead), Flint	2 1/2	1 1/2	1 1/2	1 7 6	0 3 0	Sept. 29, 1887.	6144	Cardarvan United (lead)	12	—	—	—
19000	Mineira Mines, Limited (lead, cop.)	2 1/2	9 1/2	12 1/2	27 2 6	0 2 0	Feb. 11, 1887.	6144	Cardarvan United (lead)	12	—	—	—
5000	Mining Co. of Ireland (copper, lead, cop.)	7	17 1/2	17 1/2	13 7 9	0 12 0	Jan. 7, 1888.	6144	Cardarvan United (lead)	12	—	—	—
5000	Nantow and Penrhyn, Limited (S.E. shares)	1 1/2	1 1/2	1 1/2	0 1 6	0 1 6	Apr. 30, 1885.	6144	Cardarvan United (lead)	12	—	—	—
8400	Nether Heath, Westmoreland	2 1/2	1 1/2	1 1/2	0 2 0	0 1 0	May 21, 1886.	6144	Cardarvan United (lead)	12	—	—	—
470	Newtons Mining Company, Co. Down	35	35	—	48 0 0	1 0 0	Oct. 1, 1886.	6144	Cardarvan United (lead)	12	—	—	—
200	North Pool (copper, tin), Pool	36s. 10d.	70	60 70	324 0 0	2 0 0	Dec. 26, 1884.	6144	Cardarvan United (lead)	12	—	—	—
700	North Roskar (copper), Camborne	12	27 1/2	26 28	750 0 0	4 0 0	Sept. 26, 1885.	6144	Cardarvan United (lead)	12	—	—	—
6000	North Wheal Bassett (cop., tin), Illo. (S.E.)	12 1/2	16	15	14 7 0	0 8 0	Feb. 24, 1888.	6144	Cardarvan United (lead)	12	—	—	—
6400	Par Consols (copper), St. Blaize (S.E.)	1 1/2	21	20 21	31 14 0	0 10 0	March 2, 1888.	6144	Cardarvan United (lead)	12	—	—	—
500	Peak United (lead), North Derbyshire	7 1/2	2 1/2	2 1/2	4 10 0	0 10 0	Apr. 12, 1886.	6144	Cardarvan United (lead)	12	—	—	—
200	Phoenix (copper, tin), Linkinghorne	100	370	370	244 10 0	20 0 0	Nov. 1, 1887.	6144	Cardarvan United (lead)	12	—	—	—
1000	Polybor (tin), St. Agnes (Preferential)	15	—	—	18 11 9	0 3 0	July 2, 1887.	6144	Cardarvan United (lead)	12	—	—	—
1773	Pyrite (lead and ditto)	—	—	—	1 0 0	0 10 0	March 2, 1888.	6144	Cardarvan United (lead)	12	—	—	—
560	Providence Mines (tin), Uxley Lelant	30s. 13s. 2d.	80	75 80	72 4 6	2 0 0	Feb. 24, 1888.	6144	Cardarvan United (lead)	12	—	—	—
2500	Rhosydyol and Bachelidon (lead)	11 1/2	12	12	0 13 0	0 3 0	Oct. 31, 1887.	6144	Cardarvan United (lead)	12	—	—	—
512	Rosewarne United (copper, tin), Gwinnar	12 1/2	27 1/2	27 30	33 10 0	1 10 0	June 8, 1887.	6144	Cardarvan United (lead)	12	—	—	—
18000	Sortridge Consols (cop.), Whitechurch (S.E.)	6s.	3 1/2	3 1/2	0 10 0	0 2 0	July 27, 1887.	6144	Cardarvan United (lead)	12	—	—	—
236	South Caradon (copper), St. Cleer (S.E.)	2 1/2	380	370 380	500 0 0	8 0 0	Jan. 26, 1888.	6144	Cardarvan United (lead)	12	—	—	—
123	South Crinins (copper), St. Austell	19 1/2	285	285	60 0 0	20 0 0	June 18, 1885.	6144	Cardarvan United (lead)	12	—	—	—
456	South Tolgus (copper), Redruth, Cornwall	16	155	155 160	74 0 0	3 0 0	July 23, 1887.	6144	Cardarvan United (lead)	12	—	—	—
496	South Wheal Francis, Illogan (S.E.)	18s. 10d.	240	210 215	287 5 0	5 0 0	March 1, 1888.	6144	Cardarvan United (lead)	12	—	—	—
1024	Spearhead Consols (tin), St. Just, Cornwall	3s. 11d.	3	1 1/2	8 8 0	0 2 0	Dec. 10, 1885.	6144	Cardarvan United (lead)	12	—	—	—
280	Spearhead Moor (copper), St. Just	28s. 7d.	15	—	4 5 0	0 10 0	Jan. 19, 1888.	6144	Cardarvan United (lead)	12	—	—	—
970	St. Aubyn and Grylls (cop., tin), Breage	6s. 4d.	3	—	0 17 6	0 1 0	Sept. 1, 1885.	6144	Cardarvan United (lead)	12	—	—	—
470	St. Day United (tin and copper)	—	32	35 40	915 0 0	1 0 0	Nov. 19, 1887.	6144	Cardarvan United (lead)	12	—	—	—
9600	Tamar Consols (all-lead), Beeralston (S.E.)	4 1/2	1	1 1/2	4 13 6	0 2 0	Feb. 7, 1886.	6144	Cardarvan United (lead)	12	—	—	—
6000	Treloar (copper, tin), Pool, Illogan (S.E.)	9 1/2	4 1/2	3 1/2	8 13 6	0 10 0	Feb. 18, 1888.	6144	Cardarvan United (lead)	12	—	—	—
572	Treloar Consols (tin), St. Ives	11 1/2	12	9 1/2	1 15 0	0 1 0	Feb. 21, 1884.	6144	Cardarvan United (lead)	12	—	—	—
96	Trevelyan (copper), Gwennap, Cornwall	42 1/2	65	55 65	467 15 0	5 0 0	June 4, 1885.	6144	Cardarvan United (lead)	12	—	—	—
120	Trevelyan (copper), Gwennap, Cornwall	15 1/2	20	15	403 13 0	2 10 0	Apr. 29, 1881.	6144	Cardarvan United (lead)	12	—	—	—
4000	Trevelyan (copper, tin), Bodmin	11s. 6d.	1 1/2	1 1/2	0 5 0	0 5 0	July 6, 1886.	6144	Cardarvan United (lead)	12	—	—	—
4096	Trevelyan (silver-lead), Menheniot, Cornwall	2 1/2	1 1/2	1 1/2	1 12 0	0 3 0	Apr. 2, 1887.	6144	Cardarvan United (lead)	12	—	—	—
100	Trevelyan Consols (tin), near Helston	95	20	20	85 0 0	5 0 0	Dec. 20, 1884.	6144	Cardarvan United (lead)	12	—	—	—
400	United Mines (copper), Gwennap (S.E.)	40	110	110	61 5 0	2 0 0	Feb. 12, 1886.	6144	Cardarvan United (lead)	12	—	—	—
30000	Valle of Towry (lead), Carmarthen (S.E.)	—	1 1/2	1 1/2	0 4 9	0 1 0	Mar. 12, 1888.	6144	Cardarvan United (lead)	12	—	—	—
512	Wendron Consols (tin), Wendron	23s. 7s. 6d.	40	34 35 1/2	12 10 0	1 0 0	Sept. 22, 1887.	6144	Cardarvan United (lead)	12	—	—	—
6000	West Bassett (copper), Illogan (S.E.)	20	115 1/2	115 120	285 0 0	0 8 0	Jan. 27, 1888.	6144	Cardarvan United (lead)	12	—	—	—
256	West Caradon (copper), Liskeard (S.E.)	20	115 1/2	115 120	285 0 0	0 8 0	Jan. 27, 1888.	6144	Cardarvan United (lead)	12	—</		